

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

I.—SCIENTIFIC PHILOSOPHY: A THEORY OF HUMAN
KNOWLEDGE.

I.

IN the Preface to the Second Edition of the *Critique of Pure Reason*, Kant has this remarkable passage:—

“It has hitherto been assumed that our cognition must conform to the objects; but all attempts to ascertain anything about these *à priori*, by means of conceptions, and thus to extend the range of our knowledge, have been rendered abortive by this assumption. Let us then make the experiment whether we may not be more successful in metaphysics, if we assume that the objects must conform to our cognition. . . . We here propose to do just what Copernicus did in attempting to explain the celestial movements. When he found that he could make no progress by assuming that all the heavenly bodies revolved around the spectator, he reversed the process, and tried the experiment of assuming that the spectator revolved, while the stars remained at rest. We may make the same experiment with regard to the intuition of objects. If the intuition must conform to the nature of the objects, I do not see how we can know anything of them *à priori*. If, on the other hand, the object conforms to the nature of our faculty of intuition, I can then easily conceive the possibility of such an *à priori* knowledge. . . . This attempt to introduce a complete revolution in the procedure of metaphysics, after the example of the geometers, and natural philosophers, constitutes the aim of the *Critique of Pure Speculative Reason*.”

Lange, in his *History of Materialism* (II. 156), thus alludes

to the foregoing passage, and correctly states the conclusions logically deducible from it :

"Kant himself was very far from comparing himself with Kepler ; but he made another comparison that is more significant and appropriate. He compared his achievement with that of Copernicus. But this achievement consisted in this, that he reversed the previous standpoint of metaphysics. Copernicus dared, 'by a paradoxical but yet true method,' to seek the observed motions, not in the heavenly bodies, but in their observers. Not less 'paradoxical' must it appear to the sluggish mind of man, when Kant lightly and certainly *overturns our collective experience, with all the historical and exact sciences* [the italics are ours], by the simple assumption that our notions do not regulate themselves according to things, but things according to our notions. It follows immediately from this that the objects of experience altogether are only *our* objects ; that the whole objective world is, in a word, not absolute objectivity, but only objectivity for man and any similarly organised beings, while, behind the phenomenal world, the absolute nature of things, the 'thing-in-itself,' is veiled in impenetrable darkness."

Now when the great Kant, whose towering and consummate genius there is no one to dispute, founded the Critical Philosophy on this cardinal doctrine that "things conform to cognition, not cognition to things," and when he claimed thereby to have created a mighty "revolution" in philosophy comparable only with that of Copernicus in astronomy, did he really occupy a new philosophical standpoint, or really adopt a new philosophical method ?

No. On the contrary, he merely completed, organised, and formulated the veritable revolution which was initiated in the latter half of the eleventh century by Roscellinus the Nominalist, —which was condemned in his person by the Realist Council of Soissons, revived in the fourteenth century by William of Occam, and finally made triumphant in philosophy towards the end of the fifteenth century, not so much by the inherent strength of Nominalism as by the weakness of its expiring rival, Scholastic Realism.

The essence of Nominalism was the doctrine that universals, or terms denoting genera and species, correspond to nothing really existent outside of the mind, but are either mere empty names (Extreme Nominalism) or names denoting mere subjective concepts (Moderate Nominalism or Conceptualism). Nominalism distinctly anticipated the Critical Philosophy in referring the source of all general conceptions (and thereby of all human knowledge), not to the object alone or to the object and subject together, but to the subject alone ; it distinctly anticipated the doctrine that "things conform to cognition, not cognition to things". Since genera and species are classifications of things based on their supposed resemblances and differences, the denial of all objective reality to genera and species is the denial of all

objective reality to the supposed resemblances and differences of things themselves; the denial of all knowledge of the relations of objects is the denial of all knowledge of the objects related; and this denial is tantamount to the assertion that things-in-themselves are utterly unknown.

Wrapped up in the essential doctrine of Nominalism, therefore, was the doctrine that things-in-themselves are utterly unknown; that the knowledge of their supposed resemblances and differences is derived only from the supposing mind; that "things conform to cognition, not cognition to things"; in short, that the only knowledge possible to man is the knowledge of the *à priori* constitution of his own mind, and the relations which it imposes upon things (if they exist), totally irrespective of what things really are.

Nothing can be plainer, then, than that the Critical Philosophy did but logically develop the prime tenet of Nominalism, formulate it successfully, and expand it to a self-consistent philosophical system. This, and this alone, was the true merit of Kant. The "revolution" by which philosophy was made to transfer its fundamental standpoint from the world of things to the world of thought, and in consequence of which modern philosophy in both its great schools has inherited an irresistible tendency towards Idealism, had been substantially effected and definitely established some four hundred years before. Kant did but bring to flower and fruitage the seed sown by Roscellinus, and his Critical Philosophy was only the logical evolution and outcome of Mediæval Nominalism.

By Kant's masterly development of Nominalism into a great philosophical system, it has exercised upon subsequent speculation a constantly increasing power. In truth, all modern philosophy, by tacit agreement, rests upon the Nominalistic theory of universals. Hence alone can be explained the fact, so patent and so striking, yet so little understood or even inquired into, that both the great schools of modern philosophy, the Transcendental and the Associational, equally exhibit in its full force the tendency to Idealism latent in that theory. Nominalism logically reduces all experience, actual or possible, to a mere subjective affection of the individual Ego, and does not permit even the Ego to know itself as a noumenon. The historical development of the Critical Philosophy into the subjective idealism of Fichte, the objective idealism of Schelling, and the absolute idealism of Hegel, only shows how impossible it is for that philosophy to overstep the magic circle of Egoism with which Nominalism logically environed itself. No less striking is the inability of the English school to escape from the idealistic

tendencies inherent in its purely subjective principle of Association—one of the innumerable *aliases* by which Nominalism eludes detection at the bar of contemporary thought; for Locke's successors, Berkeley, Hume, Hartley, the Mills, Bain, Spencer, and others, drift towards Idealism as steadily as Kant and his successors. It is, in fact, logically impossible to draw any but idealistic conclusions from the premisses of Nominalism—and those, too, idealistic conclusions which can not stop short of absolute Solipsism.

That modern philosophy in both its great branches irresistibly tends to Idealism is a position that will scarcely be disputed. Dr. Krauth, in his admirable edition of Berkeley's *Principles of Human Knowledge* (p. 122), thus sums up the grounds of this general and admitted tendency, while yet not perceiving that in the last analysis they are all reducible to the almost universal acceptance of the Nominalistic view of genera and species, with its implied negation of the objectivity of relations:—

"It (Idealism) rests on *generally* recognised principles in regard to consciousness. Its definition of consciousness is the one most widely received: the mind's recognition of its own conditions. It maintains that the cognitions of consciousness are absolute and infallible, and that nothing but these is, in their *degree*, knowledge. In all these postulates the great mass of thinkers agree with Idealism. The foundation of Idealism is the common foundation of nearly all the developed philosophical thinking of all schools. Idealism declares that, while consciousness is infallible, our interpretations of it, on which we base *inferences*, may be incorrect; and nearly all thinkers of all schools agree with Idealism here. No inference, or class of inferences, in which a mistake ever occurs is a basis of positive knowledge. Hence, says Idealism, only that which is directly in consciousness is positively known, and nothing is directly in consciousness but the mind's own states. Therefore we *know* nothing more. So completely has this general conviction taken possession of the philosophical mind, that even antagonists of Idealism, who would cut *it* up by the roots if they could cut *this* up, have not pretended that it could be done." (The italics are all Dr. Krauth's.)

The "strength of Idealism," thus described by Dr. Krauth, is the strength of Nominalism—no more, no less. If all the general and special relations of things, conceived by the mind and expressed by general terms, exist in the mind alone, nothing is known of things themselves; for knowledge of things is knowledge of their relations. Nominalism, therefore, is the original source of the definition of knowledge adopted by Idealism, as shown above: that is, the contents of consciousness alone. Inasmuch, moreover, as the notion of a *common* consciousness is itself a general notion, and consequently destitute of all objectivity, nothing is "knowledge," so defined, that is outside of the *individual* consciousness. Beginning with Nominalism, therefore, Idealism must end in Solipsism, on

penalty of stultifying itself by arbitrary self-contradiction. This was the path marked out for the Critical Philosophy by inexorable logic, and Fichte was more Kantian than Kant himself when he resolutely pursued it. Solipsism is the very *reductio ad absurdum* of Idealism, yet it is the rigorously logical consequence of its own definition of knowledge, which again is the rigorously logical consequence of the Nominalistic view of universals. On this point, a further quotation from Dr. Krauth will be extremely pertinent:—

“While Idealism has here a speculative strength, which it is not wise to ignore, it is not without its weakness, even at this very point, for its history shows that it is rarely willing to stand unreservedly by the results of its own principle as regards consciousness. If it accept only the direct and infallible knowledge supplied in consciousness, it has no common ground left but this—that there is the one train of ideas, which passes in the consciousness of a particular individual. A consistent Idealist can claim to know no more than this—that there exist ideas in his consciousness. He cannot know that he has a substantial personal existence, or that there is any other being, finite or infinite, beside himself. And as many Idealists are not satisfied with maintaining that we do not know that there is an external world, but go further, and declare that we know that there is not an external world, they must for consistency's sake hold that an Idealist knows that there is nothing, thing or person, beside himself. Solipsism, or absolute Egoism, with the exclusion of proper personality, is the logic of Idealism, if the inferential be excluded. But if *inference*, in any degree whatever, be allowed, not only would the natural logic and natural inference of most men sweep away Idealism, but its own principle of knowledge is subverted by the terms of the supposition. Idealism stands or falls by the principle that *no inference is knowledge*. We may reach inferences by knowledge, but we can never reach knowledge by inference” (p. 123).

Against both schools of modern philosophy, therefore, committed as they both are to the definition of knowledge drawn from Nominalism and ending in Solipsism, the charge of logical inconsistency and self-contradiction may be fairly brought, just so far as they hesitate to follow up the path to cloudland which begins with that definition. But any philosophy which hesitates to be logical forfeits all claim to the respectful consideration of mankind.

The great Roscellino-Kantian “revolution” by which Nominalism was made to supplant Scholastic Realism, and philosophy to transfer its fundamental standpoint from the world of things to the world of thought, was a revolution which logically contracts “human knowledge” to the petty dimensions of individual self-consciousness—renders it valueless as to things themselves and valuable only as to the *à priori* constitution of the individual's own mind—and in effect reduces it to a grand hallucination. Like the French Revolution, the Nominalistic revolution can live only by the guillotine, and decapitates every perception

which pretends to bring to the miserable solipsist, shut up in the prison of his own consciousness, the slightest information as to the great outside world. Defining knowledge as the mere contents of consciousness, it relegates to non-entity, as pseudo-knowledge, whatever claims to be more than that. Under its sway, philosophy is blind to the race, and beholds the individual alone. What wonder that, in the hands of those who insist on their rights to reduce theory to practice, philosophy is so often found pandering to the moral lawlessness of an Individualism that sets mere personal opinion above the supreme ethical sanctities of the universe? In human society, individual autonomy is universal antinomy; for the law that binds only one binds none. Yet, with Nominalism for its root, Idealism for its flower, and Solipsism for its fruit, how can modern philosophy, teaching in both its great schools that the individual mind knows nothing except the states of its own consciousness, discover any law that shall have recognised authority over all consciousness? For such a discovery it is hopelessly incompetent. So far, therefore, as the social and moral interests of mankind are concerned, the present philosophical situation has become simply intolerable.

Fortunately for the future of society, however, the principle of cognition embodied in the Nominalistic definition of knowledge has never obtained general assent outside of the circle of purely speculative thought. The protest of "common sense" against it was even taken up by the Scotch school in the name of philosophy itself; but the same Nominalism which paralyses all modern philosophy paralysed the Scotch school, and the protest died on its tongue. Without any conscious protest, however, though with an instinctive hostility to "metaphysics" and to the philosophy which it confounds with "metaphysics," physical science has immovably planted itself on a new definition of knowledge, and fortified it impregably against all comers; and, on the principle of cognition which it establishes, universal science, carrying up the physical and the mental into the higher unity of the cosmical, is even now beginning to build a temple of truth destined to be coæval with the human race.

(1) Modern Philosophy defines knowledge as the recognition by the Ego of its own conscious states.

(2) Modern science defines knowledge as twofold,—*individual knowledge*, or the mind's cognition of its own conscious states *plus* its cognition of the Cosmos of which it is a part, and *universal knowledge*, or the sum of all human cognitions of the Cosmos which have been substantiated by verification and certified by the unanimous consensus of the competent.

This latter definition may never have been formulated before, but it is tacitly assumed in all investigations conducted according to the scientific method; and the results of that method would be completely invalidated, if the definition itself should be essentially erroneous. Science does not present its truths as anybody's "states of consciousness," but as cosmical facts, acknowledgment of which is binding upon all sane minds. The principle of cognition on which it proceeds is utterly antagonistic to the Nominalism which denies all objectivity to genera and species: it is drawn from Realism alone, not the Scholastic Realism of the Middle Ages, but the Scientific Realism or Relationism which will be explained below. Nominalism teaches that things conform to cognition, not cognition to things; Scientific Realism teaches that cognition conforms to things, not things to cognition. It is futile to seek a reconciliation of these positions; the contradiction is absolute and insoluble. Modern philosophy counts nothing as "known" which is outside of the individual consciousness; modern science presents as "known" a vast mass of truths, of which only an insignificant fraction can be to-day comprised within the narrow limits of a single consciousness, and which in their totality can be contained only in the universal mind of man. Under the influence of the all-prevailing Nominalism of the present day, philosophy has, and must have, its beginning-point in the individual Ego; under the influence of its own unsuspected Realism, science begins with a Cosmos of which the individual Ego is merely a part. The one is exclusively and narrowly subjective, just so far as it is logically faithful to its own clearly proclaimed principle of cognition; the other is objective, in a sense so broad as to include the subjective within itself. In truth, so far was the old battle of Nominalism and Realism from being fought out by the end of the fifteenth century, that it is to-day the deep, underlying problem of problems, on the right solution of which depends the life of philosophy itself in the ages to come. But let it not be forgotten that the old Realism of Scholasticism is by no means the new Realism of science; the former perished as rightfully before Nominalism as Nominalism itself will perish before the latter.

That the scientific point of view is a thoroughly objective one, and that the cosmical facts discovered by science can by no means be made to vanish in the universal solvent of Nominalistic subjectivism, easily appears. One or two illustrations will suffice.

Prof. Jevons, in the *Principles of Science* (3rd ed., pp. 8, 9), thus speaks of the objective validity of mathematical formulae:—

"A mathematician certainly does treat of symbols, but only as the instruments whereby to facilitate his reasoning concerning quantities; and as the axioms and rules of mathematical science must be verified in concrete objects in order that the calculations founded upon them may have any validity or utility, it follows that the ultimate objects of mathematical science are the things themselves. . . . Signs, thoughts, and exterior objects may be regarded as parallel and analogous series of phenomena, and to treat any one of the three series is equivalent to treating either of the other series."

Prof. Tyndall, in his *Light and Electricity* (pp. 60, 61), thus illustrates the unhesitating and unconditional objectivity with which the science of physics presents its truths, as facts of a veritably existent and actually known Cosmos:—

"The justification of a theory consists in its exclusive competence to account for phenomena. On such a basis the Wave Theory, or the Undulatory Theory of Light, now rests, and every day's experience only makes its foundations more secure. . . . This substance is called the luminiferous ether. It fills space; it surrounds the atoms of bodies; it extends, without solution of continuity, through the humors of the eye. The molecules of luminous bodies are in a state of vibration. The vibrations are taken up by the ether, and transmitted through it in waves. These waves impinging on the retina excite the sensation."

Prof. Cooke, in his *New Chemistry*, illustrates the same point still more strikingly and emphatically, with reference to the atomic theory:—

"The new chemistry assumes as its fundamental postulate that the magnitudes we call molecules are realities; but this is the only postulate. Grant the postulate, and you will find that all the rest follows as a necessary deduction. Deny it, and the 'New Chemistry' can have no meaning for you, and it is not worth your while to pursue the subject further. If, therefore, we would become imbued with the spirit of the new philosophy of chemistry, we must begin by believing in molecules; and, if I have succeeded in setting forth in a clear light the fundamental truth that the molecules of chemistry are definite masses of matter, whose weight can be accurately determined, our time has been well spent."

Remembering that the weight of the hydrogen-atom is taken as the unit of molecular weight, or microcrith, and that, according to calculations based on the figures of Sir William Thomson, this atom weighs approximately, in decimals of a gramme, 0.000,000,000,000,000,000,000,109,312, or 109,312 octillionths of a gramme, one can easily perceive the impossibility of construing this utterly unimaginable quantity under any terms expressive of human consciousness. To consciousness it is equivalent to absolute zero; but the 'New Chemistry' demands belief in it as an actual quantity in Nature, an objectively existent reality in a Cosmos not resolvable into consciousness by any Nominalistic legerdemain.

It would be superfluous to cite further passages in order to illustrate the thoroughly objective spirit, method, and results of

modern science, as contrasted with those of modern philosophy. All scientific investigations are founded on a theory diametrically opposed to that of Kant: namely, that things can be known, though incompletely known, as they are in themselves, and that cognition must conform itself to them, not they to it. This is the philosophical translation of the principle of verification. The Nominalism that inculcates the contrary doctrine is an excrescence upon modern philosophy, a cancerous tumour feeding upon its life. Science has achieved all its marvellous triumphs by practically denying the fundamental principle laid down by Kant, and by practically proceeding upon its exact opposite; and it is a scandal to philosophy that she has not yet legitimated this practical procedure, overwhelmingly justified as it is by its incontrovertible results. The time has come for philosophy to reverse the Roscellino-Kantian revolution, and give to science a theory of knowledge which shall render the scientific method, not practically successful (for that it already is), but theoretically impregnable. The present article is the beginning of an attempt in that direction. A glance at the course of speculation in the past will render clearer the nature of the problem which philosophy has now to solve.

II.

The pre-Socratic philosophy of Greece was unqualified Realism, of a *naïve* and primitive type. The earlier Ionic philosophers, Thales, Anaximander, and Anaximenes, sought only to generalise the phenomena of the outer world, as products of a single original cause or principle (*ἀρχή*)—water, undifferentiated chaotic matter (*τὸ ἀπειρον*), air,—but they never dreamed of doubting its objective existence. The Pythagoreans sought the causal unity of the universe in its most general relations, as number, proportion, harmony, order, law, which they conceived as at once the abstract and concrete directive force of nature; their cosmology was no less objective than that of their predecessors. The Eleatics, Xenophanes, Parmenides, Zeno of Elea, Melissus, maintained the principle of objective Monism; their *ἐν καὶ πᾶν* was illimitable and immutable Being, devoid of every positive attribute save that of thought, while the manifold appearances under which it presents itself to man were only mere seeming and delusion. But there was no element of subjectivism in their cosmology; they attributed to the cosmos permanence without change, unity without multiplicity, as its constitutive objective principle. Heraclitus taught that the principle of all things was fire, as the type of ceaseless and universal change (*πάντα χωρεῖ*), in opposition to the Eleatics; but his cosmology was none the less objective because he dis-

covered in it only change without permanence, multiplicity without unity. Empedocles sought to mediate between the Eleatic and Heraclitean views by positing four changeless elements, air, earth, fire and water, with two constant forces, love and hate, and by conceding endless change in the combinations and mutual relations of these permanent factors of creation; but he was wholly as realistic and objective as his predecessors. The Atomists, Leucippus and Democritus, offered a strictly mechanical explanation of Nature, attributing independent objective reality to the atoms which alone remained changeless in the midst of eternal change. Anaxagoras in a certain sense summed up all the preceding philosophies in his own, by means of his theory of *ὁμοιομέρεια* or *semina rerum*, while he introduced a new principle in the assumption of an immaterial *νοῦς* as the moving and guiding cause of the universe; and he, too, was unreservedly objective in his cosmology.

With the Sophists, however, appeared the first symptoms of true subjectivism; and they may be regarded as the forerunners of Nominalism, though only in a feeble, crude, and undeveloped sense. The Sophists had no system, no school, no determinate principle save that of scepticism as to objective truth and paradoxical acquiescence in all opinions as equally true or equally false. Their movement was the destructive distillation of all fixed conviction in the heats of logomachy and interminable word-quibbling. They had nothing in common save a certain unity of spirit and method—a spirit of universal scepticism, and a method of adroit disputation by the employment of double meanings and ambiguous middle terms. Sceptics in philosophy, anarchists in ethics, their greatest historical merit is that of having polarised and called into activity the noble intellect of Socrates. They held no definite theory of subjectivism at all; but the manner in which they evacuated *general terms* of all fixed meaning and all objective validity challenged and arrested the attention of Socrates, as the true secret of their plausibility and bewildering success in debate. It was this fact that fixed and determined the direction taken by this mighty genius. The Sophists practically, though not theoretically, anticipated the Nominalists in conceding only subjective validity to generic and specific terms, which constitute the very alphabet of knowledge; and Socrates, piercing to the ulterior consequences of this procedure in the dissolution of all intellectual verity and all moral obligation, rose, like a giant in his strength, to combat a great tendency of his time which threatened to cause the fatty degeneration of Greek civilisation, the melancholy decay of Greek thought and life.

The astounding success of Socrates in this great struggle is

the most splendid monument to the power of individual genius that the history of philosophy can show. Alone and unaided, he checked and reversed the Nominalistic revolution already far advanced, annihilated the Sophists as a practical power in philosophy, and determined the course of speculation for a millennium and a half in the direction of Realism. No other victory such as this was ever won in the annals of human thought; and yet what historian of philosophy has perceived, much less celebrated it? It will never be appreciated until the dominant Nominalism of modern philosophy has given place to the dawning New Realism of modern science—a day perhaps less distant than now appears. What gave success to Socrates in this vast encounter was the fact that he planted himself on an immovable rock, the objective significance and validity of general terms, as opposed to their purely subjective import and value. Even Schwegler, blind as he is to the enormous importance of the struggle between Nominalism and Realism (to which in his *History of Philosophy* he devotes less than one page!), says of Socrates that “there begins with him the *philosophy of objective thought*” (p. 38, Stirling’s Translation—the italics are his). Aristotle explicitly declares in the *Metaphysics* (XII. 4) that “Socrates was engaged in forming systems in regard to the ethical or moral virtues, and was the first to institute an investigation in regard to the universal definition of these. . . . There are two improvements in science which one might justly ascribe to Socrates—I allude to his employment of inductive arguments and his definition of the universal. . . . Socrates did not, it is true, constitute universals a thing involving a separate subsistence, nor did he regard the definitions as such; the other philosophers, however, invested them with a separate subsistence.” But Socrates did attribute universal objective authority to the virtues he defined; he refuted the Sophistic construction of them as merely subjective; he repudiated the Sophistic notion that nothing is good or bad by nature (*φύσει*), but only by statute (*νόμῳ*), and vindicated the objectivity of general terms *in some sense*, without reaching that luminous doctrine of the objectivity of relations which alone explains it clearly. That Socrates conceived of universals as objective realities, without arriving at any definite conclusions as to the mode of this reality, sufficiently appears from the subsequent course of Plato and Aristotle, both of whom inherited from Socrates the undefined objectivity of universals, and each of whom proceeded to define it in his own way. The point to be here specially noted is the fact that Socrates rolled back the advancing tide of Nominalism let loose by the Sophists, accomplished the feat by means of the definition of universals as

objectively valid and real, and stamped the thought of fifteen hundred years with the impress of his own Realism.

The impending Nominalistic revolution having been thus definitely arrested by Socrates,—the great question of universals having been bequeathed by him to succeeding generations for a full and final solution,—the existence of an objective outer world was a common and undisputed premiss among his followers. In particular, the assumption of the objective reality of genera and species, as necessarily involved in that of a cognisable outer world, and as constituting the objective ground of all general terms, became a common point of departure to Plato and Aristotle. But, while Plato erected on this assumption his theory of Ideas, Aristotle erected on it his opposing theory of Essences or Forms—to which reference will be more particularly made below. Both the Platonic and Aristotelian points of view were fundamentally and equally objective, and equally alien to the point occupied by modern philosophy since the triumph of Nominalism over Realism, when the tides of thought began to set irresistibly in the direction of subjectivism.

The Stoics betrayed to some extent the influence of the Sophists in their theory of universals. They discarded alike the Platonic theory of Ideas and the Aristotelian theory of Forms, and were apparently the first to proclaim distinctly the doctrine of subjective concepts, formed through abstraction. This doctrine, however, did not attain in their hands a full logical development into the theory of Nominalism; in fact, it did not at all prevent the Stoics from advancing to the construction of a positively objective cosmology and theology of their own; and, although with a serious logical inconsistency, they maintained on the whole an objective point of view.

The Epicureans, with their doctrine of the atoms and the truth of all perceptions of matter, may be considered quite free from the tendency to subjectivism, so far as the present discussion is concerned.

The Sceptics—the earlier with their “Ten Tropes,” and the later with their “Five Tropes”—did not so much deny the existence of an outer world as the trustworthiness of human knowledge of it, and advanced no definite doctrine respecting universals. They occupied mainly negative and critical ground, and exerted no great influence in that controversy. Their arguments mostly rest on the assumption of Realism.

During the third great period of Greek philosophy, including the Græco-Judaic, the Neo-Pythagorean, and the Neo-Platonic schools, the predominant tendency was pre-eminently objective, since the mystical or theosophical contemplation of a Divine

Transcendent Object by means of the "ecstatic intuition" is incompatible with an exclusive subjectivity. Theosophy, in fact, tends to reduce the subject to a state of pure passivity, and to absorb him completely in contemplation of the Object of worship.

In no period of Greek philosophy, therefore, did the Nominalistic tendency gain much force or headway after it had once been checked by Socrates. Its hour had not yet come.

Passing now to the Christian Era, it may be said that the Patristic period was devoted to the development of systematic or dogmatic theology, without interference from pagan philosophy after the closing of the School at Athens, in A.D. 529, by edict of the emperor Justinian. Since dogmatic theology, by the very nature of its conceptions, is unqualifiedly objective, the Patristic and in main the Scholastic periods are chiefly noticeable here as having carried the principle of objectivity to so abnormal and oppressive a degree of development as to cause speculation to rebound to the opposite extreme. The creation of a great body of doctrine held by the Catholic Church to be the absolute and unmixed truth of God, and the terrible intolerance with which the Church stamped out all dissent from this fixed standard of belief, inevitably tended to excite a reaction against it, in proportion to the mental activity of the age. Moreover, the Church had planted itself in philosophy upon the Realism of Plato and Aristotle; and it was equally inevitable that the reaction should be against this, no less than against the theology of the Church. There is no room for wonder, then, at the fact that the cause of Nominalism came to be identified with the cause of intellectual and religious freedom, and the triumph of the one with the triumph of the other. Consequently it is to the Scholastic period, and to the rise of the great controversy between Realism and Nominalism—the former representing Catholic orthodoxy and the latter heterodoxy,—that must be traced the beginning of the general subjective movement of modern philosophy, although this movement did not gain full headway till after the downfall of Scholasticism, when victorious Nominalism had time to develop unrestrained all the latent tendencies it involved. Tennemann has significantly and truly said that this momentous controversy was "never definitely settled". The reason is that both sides were right, yet neither wholly so; they did but bequeath to later times a problem they could not solve. Disguised as it is by new forms and new names, the immeasurably important issue between objectivism and subjectivism involved in that ancient controversy survives to-day. Nominalism, by virtue of the truth it contained and

the freedom it represented, conquered Realism in philosophy, and culminated in the splendid genius of Kant; Realism, by virtue of the truth it too contained, conquered Nominalism in science, created an army of experimental investigators of Nature, and culminated in the establishment of the scientific method, which, though as yet purely practical and empirical, demands with increasing emphasis from philosophy a theory of knowledge that shall justify it in all eyes. Here is the explanation of the wide divergence, the virtual divorce and even antagonism, which is so patent a fact to all who look beneath the surface of things, between science and philosophy. All the intellectual interests of mankind must suffer greatly, until the breach is effectually healed; and the first step to the reconciliation so much to be desired must be a clear comprehension of the causes which have created the division. Hence the necessity of surveying the ancient battle-field of Scholasticism.

The proximate origin of the great mediæval dispute over the nature of universals seems to have been a passage at the commencement of Porphyry's *Introduction* to Aristotle's treatise on the *Categories*, known at the time only through the Latin translation of Boëthius, in which these three problems were stated, but not elucidated, with respect to genera and species:—“(1) Whether they have a substantive existence, or reside merely in naked mental conceptions. (2) Whether, assuming them to have substantive existence, they are bodies or incorporeals. (3) Whether their substantive existence is in and along with the objects of sense, or apart and separable.” Neglecting minor distinctions, refinements and subtleties, and without following the long and tedious course of the dispute, it will amply suffice for present purposes to state concisely the five leading positions maintained by different philosophers of the Scholastic period, as follows:—

(1) **EXTREME REALISM** (*Universalia ante rem*) taught that universals were substances or things, existing independently of and separable from particulars or individuals. This was the essence of Plato's Theory of Ideas, and Plato was the father of Extreme Realism as held in the Scholastic period. Scotus Erigena, who died A.D. 880, was the first to revive this doctrine in the Schools, borrowing from the Pseudo-Dionysius Areopagita.

(2) **MODERATE REALISM** (*Universalia in re*) also taught that universals were substances, but only as dependent upon and inseparable from individuals, in which each inhered; that is, each universal inhered in each of the particulars ranged under it. This was the theory of Aristotle, who held that the *τόδε τι*

or individual thing was the First Essence, while universals were only Second Essences, real in a less complete sense than First Essences. He thus reversed the Platonic doctrine, which attributed the fullest reality to universals only, and a merely "participative" reality to individuals. Until Scotus Erigena resuscitated the Platonic theory, Aristotle's was the received doctrine in the Schools; and the warfare was simply between those two forms of Realism prior to the advent of Roscellinus.

(3) EXTREME NOMINALISM (*Universalia post rem*) taught that universals had no substantive or objective existence at all, but were merely empty names or words (*nomina, voces, flatus vocis*). Though probably not the absolute originator of this *sententia vocum*, as the doctrine came to be called, Roscellinus, Canon of Compiègne, was the first to give it currency and notoriety, and the Council of Soissons, under the influence of the Realist Anselm of Canterbury, his chief opponent, forced him in the year 1092 to recant the tritheistic interpretation of the Trinity, which he had consistently and courageously avowed. The theory of Extreme Nominalism was thus put under the ecclesiastical ban.

(4) MODERATE NOMINALISM or CONCEPTUALISM (*Universalia post rem*) taught that universals have no substantive existence at all, but yet are more than mere names signifying nothing; and that they exist really, though only subjectively, as concepts in the mind, of which names are the vocal symbols. Abélard is claimed by some, but probably incorrectly, as the author of this modification of the Nominalistic view; William of Occam, who died in 1347, seems to have been the chief, if not the earliest, representative of it. The *Encyclopædia Britannica* (xvi., 284, 8th ed.) says: "The theory termed Conceptualism, or conceptual Nominalism, was really the one maintained by all succeeding Nominalists, and is the doctrine of ideas generally believed in at the present day".

(5) Albertus Magnus (died 1280), Thomas Aquinas (died 1274), Duns Scotus (died 1308), and others fused all these views into one, and taught that universals exist in a three-fold manner: *Universalia ante rem*, as thoughts in the mind of God; *Universalia in re*, as the essence (quiddity) of things, according to Aristotle; and *Universalia post rem*, as concepts in the sense of Moderate Nominalism. This is to-day the orthodox philosophy of the Catholic Church, as opposed to the prevailingly exclusive Conceptualism of the Protestant world.

Thus both Extreme Realism and Moderate Realism maintained the objective reality of genera and species; while both Extreme Nominalism and Moderate Nominalism maintained that genera and species possess no objective reality at all.

In contrast with all the views above presented, another and sixth view will now be stated, which, taken as a whole and with reference to the vitally important consequences it involves, is believed to be both novel and true.

(6) **RELATIONISM** or **SCIENTIFIC REALISM** (of which *universalia inter res* may be adopted as an apt formula) teaches that universals, or genera and species, are, *first*, objective relations of resemblance among objectively existing things; *secondly*, subjective concepts of these relations, determined in the mind by the relations themselves; and, *thirdly*, names representative both of the relations and the concepts, and applicable alike to both. This is the view logically implied in all scientific classifications of natural objects, regarded as objects of real scientific knowledge. But although empirically employed with dazzling success in the investigation of Nature, it does not appear to have been ever theoretically generalised or stated.

This view rests for its justification upon a broader principle; namely, that of the *Objectivity of Relations*, as opposed to the principle of the *Subjectivity of Relations*, which is the essence of the Nominalistic doctrine of universals inculcated by modern philosophy. Kant distinctly made "Relation" one of the four forms of the logical judgment which determine the twelve "categories of the understanding"; *i.e.*, the *à priori* forms of thought, totally independent of "things-in-themselves," and applicable to them only so far as they are objects of a possible "experience," which, however, reveals nothing of their real nature. This doctrine that relations do not inhere at all in "things-in-themselves," but are simply imposed upon them by the mind in experience as the purely subjective form of phenomena, is strictly deducible from the Nominalistic doctrine that general terms, by which relations are expressed, correspond to nothing objectively real; and Kant's master-mind is nowhere more clearly apparent than in the subtlety and profundity with which he thus seized the prevalent but undeveloped Nominalism of the modern period, and erected it into the most imposing philosophical system of the world. By this doctrine of the Subjectivity of Relations, Kant reduced the outer world to utterly unknown *Dinge-an-sich*, and paved the way for his still more thorough-going disciple, Fichte, to deny their very existence, and thereby to take a great stride in conducting Nominalism to its only logical terminus, Solipsism.

The principle of Relationism, however, rests on these self-evident propositions:—

- (1) Relations are absolutely inseparable from their terms.
- (2) The relations of things are absolutely inseparable from the things themselves.

- (3) The relations of things must exist where the things themselves are, whether objectively in the Cosmos or subjectively in the mind.
- (4) If things exist objectively, their relations must exist objectively; but if their relations are merely subjective, the things themselves must be merely subjective.
- (5) There is no logical alternative between affirming the objectivity of relations in and with that of things, and denying the objectivity of things in and with that of relations.

For instance, a triangle consists of six elements, three sides and three angles. The sides are things; the angles are relations—relations of greater or less divergence between the sides. If the sides exist objectively, the angles must exist objectively also; but if the angles are merely subjective, so must the sides be also. To affirm that the sides are objective realities, even as incognisable things-in-themselves, while yet the angles, as relations, have only a subjective existence, is the *ne plus ultra* of logical absurdity. Yet Kantianism, Nominalism, and all Nominalistic philosophy, are driven irresistibly to that very conclusion.

In short, it is because modern philosophy rests exclusively on the basis of Nominalism, of which the only logical terminus is absolute Egoistic Idealism or Solipsism, and because modern science rests exclusively on the basis of Relationism, that we affirm unqualifiedly an irreconcilable antagonism between the two just so long as their respective bases remain unchanged. It seems needless, but may be nevertheless advisable, to point out explicitly that Relationism carefully shuns the great error of Scholastic Realism, *i.e.*, the hypostasisation of universals as substances, entities, or things; it teaches that genera and species exist objectively, but only as relations, and that things and relations constitute two great, distinct orders of objective reality, inseparable in existence, yet distinguishable in thought.

The philosophic value of the principle of Relationism is strikingly illustrated in the ease with which, applied as a key, it unlocks the secret and lays bare the signification of the ancient and still unfinished controversy between Realism and Nominalism.

- (1) It shows that Extreme Realism was right in upholding the objectivity of universals, but wrong in classing them as independent and separable substances or things.
- (2) It shows that Moderate Realism was right in upholding the objectivity of universals, but wrong in making them inherent in individuals AS INDIVIDUALS (*in re*) rather

than in individuals AS GROUPS (*inter res*). Relations do not inhere in either of the related terms taken singly, but do inhere in all the terms taken collectively.

- (3) It shows that Extreme Nominalism was right in denying the objectivity of universals as substances or things (the great error of its opponent), and right in affirming the existence of universals as names ; but wrong in denying their objectivity as relations and their subjectivity as concepts.
- (4) It shows that Moderate Nominalism or Conceptualism was right in denying the objectivity of universals as substances, and also right in affirming their subjectivity as concepts ; but wrong in denying their objectivity as relations.

Thus every element of truth is gathered up, and every element of error is eliminated, by rejecting the four historic theories already recapitulated, together with the merely syncretistic fifth theory, and by substituting in their place the propounded sixth theory of Relationism. Its precision, lucidity, comprehensiveness, and adequacy to account for all the facts, will become so evident to anyone patient enough to master it fully in all its bearings, as to warrant the indulgence of a hope that it may permanently solve the great problem declared by Tennemann to have never been "definitively settled".

III.

When Scholasticism fell, the theory of Relationism had occurred to no one. Each of the competing theories discerned the weakness of its rivals, yet could not discern its own, and was therefore unable to arrive at the real truth respecting universals. Consequently, as has just been pointed out, the truth was divided among them. Nominalism gradually won the ascendancy among philosophers in the form of Conceptualism ; while Relationism became, not indeed a received theory, since as a theory it did not yet exist, but yet the unformulated and empirical principle of the actual practice of scientific observers, experimenters, and investigators of nature. Philosophy divorced itself from a true objectivity, and surrendered itself to subjectivism in the form of Moderate Nominalism ; while science, ceasing to philosophise, turned its back upon the barren metaphysics of the schools, because they could yield no objective knowledge, and learned the sad lesson of contempt for philosophy itself.

A period of transition followed the downfall of Scholasticism, full of confusion and conflicting tendencies. Spasmodic resus-

citation of various ancient philosophies—Aristotelianism in a more accurately known form, Platonism, Neo-Platonism, Stoicism, Epicureanism, &c.—ensued; but these revived systems did not materially contribute to the growth of the subjective tendency, since, as has been shown, ancient philosophy in the post-Socratic periods had been prevalingly objective in all its forms. The true origin of the increasing subjectivism of philosophy, and therefore the true secret of the increasing repugnance of science for philosophy itself, lay in the triumph of Nominalism over the relatively inferior Realism of the Middle Ages, in its denial of all objective knowledge save of particulars *as isolated and unrelated*, and in its claim of a strictly subjective genesis for universals as concepts or names alone. Philosophy in this manner stripped the objective world of everything that was really intelligible—genera, species, relations of all kinds; while science, bereft of all philosophical aid, took refuge in a rude sort of common sense and fortified itself in a spirit of defiance to all speculative thought. Bacon's popularity rested really on no stronger foundation: he merely headed an unreasoning revolt against Nominalism, hardly knowing what he did, yet practically rendering an immense service by rallying the enterprising and curious spirits of the time about the standard of "induction". He too joined in the wide-spread outcry against Aristotle and his followers, mistakenly believing that Aristotle was really responsible for the Nominalism of the age which he vaguely felt to be the chief obstacle to science. The results of this open feud between science and philosophy were disastrous to both in the end; for, while the latter tended steadily towards Idealism and Solipsism, the former as steadily tended towards Materialism. For the time being, however, the revolt of science against philosophy was most salutary.

While science adopted a purely empirical objective method, took Nature for granted, investigated things and their relations by observation and experiment on the hypothesis of their equal objectivity, and entered on a career of dazzling conquest, without troubling itself to invent any philosophical justification for a method so prolific of discoveries as to silence all criticism or cavil by the brilliancy of its achievements, philosophy had already entered upon a path which led indeed to the construction of numerous subjective systems of unsurpassed ability, yet to none that could endure. The history of philosophy has been for three centuries only a succession of gaily-coloured pictures, each more startlingly beautiful than the last, yet each doomed to disappear at the next turn of the kaleidoscope. While science can proudly point to a vast store of verified and established truths, which it is a liberal education to have learned and the

merest lunacy to impugn, philosophy has achieved nothing that is permanently established. The cause of this vast difference in result is a radical difference in method. Objectivism, albeit solely empirical, has created the glory of science; subjectivism, albeit elaborately and ostentatiously reasoned, has created the shame of philosophy. And philosophy can never redeem itself from this shame of utter barrenness until it repudiates subjectivism with Nominalism, its cause.

The epoch of Scholasticism is regarded by some as closed by the death of Gabriel Biel, the "last Scholastic," in 1495, when Nominalism had acquired almost undisputed sway.

Now the essential method of Scholasticism had been, as Tennemann well expresses it, to "draw all knowledge from conceptions". So long as Realism flourished, and universals, as entities, were held to possess substantial objective existence, the analysis of concepts, independently of experience or verification, was held to yield real knowledge of their objective correlates—a mistake impossible to the New Realism or Relationism. But when Nominalism had destroyed the objectivity of universals, it had also destroyed the possibility of deriving objective knowledge from concepts. A dilemma thus arose: either objective knowledge is unattainable, or it must be attained otherwise than by the mere analysis of concepts as such. But how?

In this manner was developed a new and momentous problem, that of the Origin of Knowledge, which now displaced the old and still unsolved problem of the Nature of Universals—not at all fortuitously, but logically and inevitably as a direct result of the triumph of Nominalism. Nominalism had answered the old question after its own manner by resolving universals into merely subjective notions; and this answer, false as it was, was accepted as satisfactory. But the acceptance of it involved some awkward consequences. If objective knowledge cannot be derived from concepts, whence can it be derived? Or is there no such thing as objective knowledge?

Science met these questions by boldly adopting the principle of Objective Verification—a principle depending absolutely for its philosophical justification on the theory of Relationism, but adopted by Bacon and the inductionists in general as a purely empirical method, in utter indifference to such justification. From that time forward, scientific men have quietly assumed the objectivity of relations, and steadily pursued the path of discovery in total disregard of the disputes of metaphysicians—not, however, without a serious loss to science itself, in the growth and spread of the false belief that science can legiti-

mately deal only with physical investigations, and that the scientific method has no applicability in the "higher sciences".

But philosophy met the same questions by dividing into two hostile camps. The sufficiency of the Nominalistic answer to the question of universals—that they are exclusively of subjective origin—was taken for granted by both parties; genera, species, relations of all kinds, were unanimously conceded to possess no objective validity whatever. Logically, this is the total surrender of all objective knowledge; and in the long run modern philosophy has come to accept this result, as shown by the almost entire unanimity of modern philosophers in the opinion that things-in-themselves, or noumena, are utterly incognoscible. But it is impossible to maintain this opinion in logical consistency, and on this point not a single logically consistent philosopher can be pointed out; if he can be found, he will prove to be an inexorably rigorous Solipsist, not afraid to deny the existence of all minds save his own, no less than that of the material world. It would be refreshing to meet with a subjectivist possessed of the courage of his opinion; but he would be the terror of all his brother-subjectivists, perhaps a candidate for premature interment.

The division that now arose and separated modern philosophy into two great contending parties, did not concern the question whether knowledge originated in the object or in the subject,—for both parties agreed in the Nominalistic answer to this question,—but whether, in the subject mind itself, it originated in the senses or in the intellect. That was the great new question started at the recognised dawn of modern philosophy by Descartes and Locke; and both parties to the controversy, both the *à priori* and the *à posteriori* schools, were equally switched off upon the false track of Nominalism that conducts to Egoism or to nothing.

Descartes' theory of "innate ideas" encountered a vigorous rival in Locke's theory of experience as limited to the data of "sensation and reflection"; and thus the two armies took position for the long warfare that is resultless still. There is not the slightest occasion, for the purposes of this paper, to follow the course of this dispute, or to repeat the argumentation and counter-argumentation by which it has been maintained. The point of view here taken is that both these famous schools have logically immured themselves in the dungeon of subjectivism, and are utterly powerless to release themselves; that the one is just as incompetent as the other to explain the "origin of knowledge" about which they have been contending so long; and that, like Venus and Mars suspended in Vulcan's cage to provoke the "inextinguishable laughter" of the Odyssean gods,

they do but enact a farce at which philosophy hangs her head. Travelling round the same circle of subjectivism in opposite directions, these two schools are fated to re-unite on the farther rim in one identical point—the stand-point of Absolute Egoistic Idealism. That is the only possible terminus of a subjectivism that, beginning with the definition of knowledge as only the mind's recognition of its own states, dares to obey the logic of its own fundamental principle; and what is the philosophy worth that contradicts itself? No sequent thinker who begins with the Ego as sole starting-point will fail to end with the Ego as sole terminus, unless he stoops to unworthy tricks or evasions; and that is the suicide of philosophy.

The triumph of Nominalism did indeed force upon thought a new problem in the question of the "origin of knowledge"; but great is the delusion of the two schools which imagine the solution of that question to lie with one of themselves.

The *à priori* school started with Descartes' *Cogito ergo sum*; that is, with an original positing of the Ego as an *individual thinking being*. The *à posteriori* school started with Locke's "sensation"; that is, with an original positing of the Ego as an *individual feeling being*. That is essentially the only difference—the difference between beginning with individual thought or individual feeling as the prior element of individual consciousness,—both beginnings being equally and incontrovertibly egoistic. But this is a trivial difference indeed, compared with the abysmal difference between both these egoistic schools, on the one hand, and modern science, on the other; for here the issue is a broad, deep, fundamental one—namely, whether the real "origin of knowledge" is in the Ego or in the Non-Ego, or in both. Knowledge itself, in the conception of both these Nominalistic schools, is confined to the series of changes that go on in consciousness; and all their mutual discussions are mere child's-play, compared with the discussions that await philosophy the moment she comes abreast of the time.

Science is to-day challenging emphatically the very foundation of both *à priori* and *à posteriori* philosophies; and the challenge is none the less menacing or deep-toned, because it has been hitherto uttered in deed rather than word. She denies, not by a theory as yet, but by the erection of a vast and towering edifice of verified objective knowledge, that genera and species are devoid of objective reality, or that general terms are destitute of objective correlates; she denies that Nominalism has rightly solved the problem of universals, when that solution would in an instant, if conceded, sweep away all that she has won from Nature by the sweat of her brow. Her very existence

is the abundant vindication of Relationism, as the stable and solid foundation of real knowledge of an objective universe. As the case now stands, philosophy has two great schools, equally founded on a reasoned subjectivism which *denies the possibility of knowing*, in any degree, an objectively existent cosmos as it really is; while science rests immovably on the fact that she *actually knows* such a cosmos, and proves by *verification* the reality of that knowledge which philosophy loudly and emphatically denies. Science must be all a huge illusion, if philosophy is right; philosophy is a sick man's dream, if science is right. One or the other must speedily effect a total change of base; and it is safe to predict that the change will not be made by science.

Three answers are given, therefore, to the question as to the Origin of Knowledge; two by Nominalism, with its two schools of modern philosophy, and one by Relationism, interpreting the silent method of science. They are substantially as follows:—

(1) The *à priori* school teaches that knowledge has two ultimate origins, the experience of the senses and the constitution of the intellect—the senses contributing its *à posteriori* “matter” and the intellect contributing its *à priori* “form”; that the intellect is the source of certain universal and ante-experiential principles of knowledge which cannot be in any manner derived from the senses; that these principles or “forms” are themselves an object of pure *à priori* cognition, independently of experience; that experience consists solely of sense-phenomena, and sense-phenomena give no knowledge of their merely hypothetical noumenal causes, *i.e.*, of “things-in-themselves”. In other words, things (if they exist—which is at least dubious) conform themselves to cognition; the subject knows only its own subjective modifications, arranged in a certain order according to *à priori* laws of knowledge which are only subjectively valid. This is Nominalistic Subjectivism of the *à priori* type.

(2) The *à posteriori* school teaches that knowledge has only one ultimate origin, the experience of the senses; that the intellect is indeed the source of certain universal constitutive principles of knowledge, but that these were originally derived from the senses, having been slowly organised and consolidated, by the law of the “association of ideas,” into hereditarily transmissible “forms” of experience; that there is no such thing as “pure *à priori* cognition,” independent of experience; that experience consists solely of sense-phenomena, that the intellect itself has been slowly evolved out of it, and that sense-phenomena give no knowledge of their merely hypo-

thetical noumenal causes. In other words, things-in-themselves (if they exist—which is equally dubious by this theory) conform themselves to cognition; the subject knows only its own subjective modifications, arranged in a certain order according to *à posteriori* laws of knowledge, which are only subjectively valid. This is Nominalistic Subjectivism of the *à posteriori* type.

Thus both of these dominant schools thoroughly agree in planting themselves upon the foundation of Moderate Nominalism or Conceptualism; they agree that universals, the genera and species by which alone sense-phenomena are reducible to intelligible order, are merely subjective concepts without objective correlates. They agree that things-in-themselves are unknown and unknowable, and that the subject knows its own conscious states alone. By both schools, consequently, the principle of Relationism is either unknown or ignored; relation itself is by both reduced to a merely subjective category, valid only as the subjective order imposed on subjective sense-phenomena, and utterly meaningless as applied to noumena; and noumena—intelligible objective realities, as presented by the various sciences—are totally incognoscible. But when the vitally pertinent question is put: "*Why* should the series of sense-phenomena, or sensations, or consciousnesses in general, be what it is? *Why* should the senses and understanding conspire to give a coherent appearance of objective knowledge, when no objective knowledge is possible?" neither school has any reply to make. The only reply consistent with their common premisses would be Fichte's reply, that the apparent objects of knowledge are given by the subject to itself, according to some inscrutable law working subtly beneath consciousness itself. This reply has at least the merit of consistency with the ground-principles of subjectivism, and does not flinch from landing philosophy in Solipsism undisguised. But few subjectivists possess sufficient hardihood to make this consistent reply; they prefer to "have their cake and eat it too".

(3) The theory of Scientific Philosophy (by which is meant simply the philosophy that founds itself theoretically upon the practical basis of the scientific method) teaches that knowledge is a dynamic correlation of object and subject, and has two ultimate origins, the cosmos and the mind; that these origins unite, inseparably yet distinguishably, in experience, *i.e.*, the perpetual action of the cosmos on the mind *plus* the perpetual reaction of the mind on the cosmos and on itself as affected by it; that experience, thus understood, is the one proximate origin of knowledge; that experience has both an objective and a sub-

jective side, and that these two sides are mutually dependent and equally necessary; that the objective side of experience depends on the real existence of a known universe, and its subjective side on the real existence of a knowing mind; that experience includes all mutual interaction of these, whether sensitive or cognitive, and is utterly inexplicable even as subjective sensation, unless its sensitive and cognitive elements are equally recognised; that this extended conception of experience destroys the distinction of noumena and phenomena, as merely verbal and not real; that "things-in-themselves" are partly known and partly unknown; that, just so far as things are known in their relations, they are known both phenomenally and noumenally, and that the possibility of experimentally verifying at any time their discovered relations is the practical proof of a known noumenal cosmos, meeting every demand of scientific certitude and furnishing the true criterion and definition of objective knowledge. In other words, science proceeds upon a principle diametrically opposite to that of Nominalism, already explained under the name of Relationism. It assumes that cognition conforms itself to things, not things to cognition,—that being determines thought, not thought being,—that the subject knows not only its own subjective modifications but also the objective things and relations which these modifications reveal. Kant did but "assume" the counter-principle; and if he considered his assumption as at last "demonstrated" by his system as a whole, science equally considers its assumption as demonstrated by the actual existence of its verified and established truths as a body of objective knowledge.

These three answers to the question as to the origin of knowledge show how vast is the divergence between modern philosophy and modern science. Philosophy has never yet entirely shaken off the blighting influence of Scholasticism, even while fancying itself wholly emancipated from it; for Nominalism, no less than the old Realism, was the legitimate offspring of Scholasticism. It was only one of the two great answers, both one-sided and both wrong, which Scholasticism gave to the question of universals. Philosophy is still Scholastic to-day; it has never yet modernised itself in any true sense, and it never will do so until it sits modestly at the feet of science, imbues itself thoroughly with the spirit of the scientific method, and applies the principle of Relationism to the reconstitution of the moral sciences and the total reorganisation of human knowledge. This, though a vast revolution for philosophy herself, will be simply giving in her adhesion to the revolution which science made long ago, and has rendered irreversible. But it will also

be putting herself at the head of that revolution, and conducting it to conquests in regions of the highest truth of which science herself has never yet dreamed.

IV.

Aristotle taught, with truth, that the proper object of science is the universal rather than the particular or individual. Although it was his doctrine that individuals are First Essences, while species are Second Essences, and genera Third Essences, real only in a lower sense than the former, nevertheless it was also his doctrine that the universal inheres in each individual substance and constitutes its conceptual or intelligible essence (*ἡ κατὰ τὸν λόγον οὐσία*). The universal and the individual were inseparable, and must therefore be known together: yet the universal, being the essence of the individual, was itself the only proper and real object of scientific cognition.

Translating the Moderate Realism of Aristotle into the more accurate language of Relationism, and not forgetting to correct its capital error of making the universal inhere in each individual as an individual (*in re*) rather than in all the individuals as a group (*inter res*), the meaning of his doctrine is that science is concerned with the general relations of things rather than with the things themselves—with general laws rather than with the peculiarities or accidents of individual objects.

Modern science proceeds uniformly according to this incontestable principle. Says Prof. Jevons:—

“There is no such process as that of inferring from particulars to particulars. A careful analysis of the conditions under which such an inference appears to be made shows that the process is really a general one, and what is inferred of a particular case might be inferred of all similar cases. All reasoning is essentially general, and all science implies generalisation. In the very birth-time of philosophy this was held to be so: ‘Nulla scientia est de individuis, sed de solis universalibus,’ was the doctrine of Plato, delivered by Porphyry. And Aristotle held a like opinion; *Οὐδεμία δὲ ἐπιστητόν*. ‘No art treats of particular cases, for particulars are infinite *τέχνη σκοπεῖ τὸ καθ’ ἕκαστον* . . . *τὸ δὲ καθ’ ἕκαστον ἄπειρον καὶ οὐκ* and cannot be known.’ No one who holds the doctrine that reasoning may be from particulars to particulars can be supposed to have the most rudimentary notion of what constitutes reasoning and science.”

It is, in truth, impossible to study even a particular case without generalising; all knowledge consists in the seizure of the relations of things, and every name of a relation is of necessity a general term. Prof. Jevons correctly quotes both Plato and Aristotle as concurring in this fundamental principle, since both of them occupied the stand-point of objectivism; and Prof. Jevons himself, as a scientific man, can occupy no other, al-

though, as a thinker, more or less infected with the subjectivism of modern philosophy, he has not succeeded in occupying it always or with entire consistency.

Now subjectivism reduces all science to the knowledge of *one individual*, the Ego,—which, as just shown, is no science at all. If its fundamental definition of knowledge means anything, or is faithfully adhered to, subjectivism teaches that the intelligent subject has no intelligence save of itself—has no warrant for believing in the existence of anything save itself—knows nothing but the inexplicable order of its own sensations and thoughts. It reduces all existence to an unrelated One, while of an unrelated One no science is possible. In a word, subjectivism, if logical, annihilates science at a blow.

There is no logical escape from this inference, drawn directly from the subjectivist definition of knowledge. Subjectivism cannot concede the knowledge of any existence except that of the subject itself; it cannot concede any knowledge of the subject, except that of its seriated conscious states; it cannot concede any knowledge of these conscious states as a series, but only as single and unrelated; and it thus lands ultimately in the scepticism of Hume. For to generalise a series of thoughts as *thought*, or a series of sensations as *sensation*, is to use a general term, which, *ex hypothesi*, corresponds to no existent correlative in an objective sense; the general terms, thought, sensation, consciousness, on the principle of Nominalism, denote nothing real in the thoughts, sensations or consciousnesses which are generalised, but express only an act of the subject as generalising. Apply the very same principle to the knowledge of the subject itself which subjectivism applies to the knowledge of the outer world,—refuse that objective validity to general terms as applied to the world of consciousness which is refused to general terms as applied to the world outside of consciousness,—and it is shown irresistibly that subjectivism does not permit “knowledge” even of the subject’s own “conscious states”. “Consciousness” is a general term; “state” is a general term; every such term denotes a relation among certain related objects; and if this relation must be separated from the related objects when they are *outside of the subject*, why must it not be separated from the related objects when they are *within*? Subjectivism necessarily destroys itself by its own definition of knowledge; it cannot exist an instant except by denying the very principle it asserts; it escapes self-annihilation only on the hard and humiliating condition that it shall perpetually contradict itself. The sword with which it slays science pierces its own heart.

Nothing is more astonishing than the utter indifference of

subjectivists to their own innumerable self-contradictions on these vital points—self-contradictions all the more amusing in view of their insistence that objectivism shall be rigorously and consistently reasoned. Let a few instances be here noticed.

Berkeley's idealism (a direct product of the Nominalistic revolution) is usually praised to the skies as unerringly logical and self-consistent. Yet the same reasoning which leads him to deny the existence of a material world ought to lead him to deny the existence of other human minds—of which there is no proof except sight, hearing, and touch of the material bodies by which these minds manifest themselves. Berkeley's great paralogism on this point is pointed out even by his own editor, Dr. Krauth (p. 400), as follows:—

"Berkeley is a realistic idealist; holding that the realistic inference is invalid as regards matter, but conceding it as regards mind. He holds to real substantial spirits, God and man. Hence, too, his monism is only generic. He holds to a monism of genus,—to spirit alone; but he concedes a dualism of species,—infinite Spirit, the cause of ideas, and finite spirits, the recipients of them. But this his strength is also his weakness. Every moral advantage of his Idealism over its successors is secured at the expense of its development and of its logical consistency."

Mr. Shadworth H. Hodgson, in his *Time and Space* (Introduction, p. 5), says:—

"By the term consciousness, in this Essay, is always meant consciousness as existing in an individual conscious being; and proofs drawn from such a consciousness can have no validity for other conscious beings, unless they themselves recognise their truth as descriptions applicable to the procedure and phenomena of their own consciousness. Doctrines, if true, will ultimately be recognised as such by all individuals whose consciousness is formed on the same type, that is, by all human beings."

Here is luminously presented the cardinal and universal contradiction in all non-solipsistic form of subjectivism: (1) The assumption that the Ego knows only the changes of its own consciousness; and (2) the assumption that the Ego knows other Egos to exist that are "formed on the same type". One of these assumptions necessarily destroys the other.

There are countless similar self-contradictions scattered all through the writings of subjectivists, some amusing by their *naïveté*, some ingenious in their subtlety, some amazing by their evident unconsciousness, but all sufficiently humiliating and mortifying to those who would fain see philosophy comport herself with the dignity of science rather than with the agility of a circus-clown. One further illustration will suffice.

Prof. Clifford, in his *Lectures and Essays* (ii. 71), takes the ground of the most uncompromising subjectivism at the outset, and then coolly proceeds to break loose from it in the most violently illogical style, yet apparently without the least

suspicion of the exhibition he thereby makes of himself as a philosopher:—

“The objective order, *quâ* order, is treated by physical science, which investigates the uniform relations of *objects* in time and space. Here the word *object* (or *phenomenon*) is taken merely to mean a group of my feelings, which persists as a group in a certain manner; for I am at present considering only the objective order of my feelings. The object, then, is a set of changes in my consciousness, and not anything out of it. . . . The inferences of physical science are all inferences of my real or possible feelings; inferences of something actually or potentially in my consciousness, not of anything outside of it.”

Bald and unblushing as is the egoism of this passage, it is entirely clear; and it is quite possible to build up on this basis an idealistic Solipsism which shall at least tolerably cohere with itself. But Prof. Clifford immediately proceeds to crucify his own subjectivism in this manner:—

“However remote the inference of physical science, the thing inferred is always a part of me, a possible set of changes in my consciousness bound up in the objective order with other known changes. But the inferred existence of your feelings, of objective groupings among them similar to those among my feelings, and of a subjective order in many respects analogous to my own,—these inferred existences are in the very act of inference *thrown out* of my consciousness, recognised as outside of it, as not being a part of me. I propose, accordingly, to call these inferred existences *ejects*, things thrown out of my consciousness, to distinguish them from *objects*, things presented in my consciousness, phenomena. . . . How this inference is justified, how consciousness can testify to the existence of anything outside of itself, I do not pretend to say: I need not untie a knot which the world has cut for me long ago. It may very well be that I am myself the only existence, but it is simply ridiculous to suppose that any body else is. The position of absolute idealism may, therefore, be left out of count, although each individual may be unable to justify his dissent from it.”

This airy distinction of “object” and “eject” does not in the least disguise the cardinal contradiction into which Prof. Clifford, in common with all subjectivists who shrink back from Solipsism, falls. Ejects, as he proceeds to define them, are simply “other men’s minds”; but other men’s minds are only known through their bodies, and their bodies are “objects” like trees or stones; while trees and stones are just as truly “ejects” from consciousness as are other men’s minds. In a word, ejects are objects, and objects are ejects; there is absolutely no distinction between them, on Prof. Clifford’s own showing; objects and ejects must be both objective or both subjective. Yet Prof. Clifford arbitrarily (it would almost seem wilfully) objectifies ejects and subjectifies objects! He flatly refuses to “untie a knot” which contains the whole point in dispute, and which the “world” has “cut” just as effectively for objects as for ejects; he coolly begs the

whole question, and repudiates the Solipsism from which his own principles permit no rational escape.

These illustrations of the self-contradiction of subjectivism are *typical*, not *sporadic*; they show how deep-rooted is the disease under which modern philosophy is suffering. Whenever (if ever) subjectivism shall dare to be rigorously logical, it will be the *reductio ad absurdum* of Nominalism, and compel philosophy to adopt Relationism and the scientific method in general. All science is of the universal; all sequent subjectivism abolishes the universal, and leaves only the individual, a solitary, unrelated, incomprehensible Ego. It avails nothing to create a phantom-science of the universal in a world of sensations alone; true philosophy, no less than true science, demands an explanation of that series of sensations which subjectivism can accept only as an unintelligible fact. Diogenes commanded a certain respect so long as he actually lived in his tub; but if, having fastened to his forehead a placard, "I am Diogenes, and I live in this tub," he had then tied the tub to his back, lived in a house, slept in a bed, and behaved like ordinary mortals, he would have been pelted with a storm of pitiless gibes from the keen-witted Athenians. And when philosophy, having tied the tub of subjectivism to its back, lives and lectures in a world of "ejects," and expounds to them a science of the objective relations they bear to each other and to an intelligible cosmos, human nature must have radically changed if philosophy fares any better.

It all comes to this; either the truth of subjectivism or the truth of science is a pure illusion. The possibility of the one is the impossibility of the other.

The conclusion just stated finds abundant corroboration in contemporaneous thought. Subjectivism in philosophy has created a new type of scepticism in science. Urged as it were by a consciousness that it can only maintain its own truth by discrediting the truth of science, philosophy does not hesitate to undertake the task. Hence it has formulated a law of philosophical scepticism under the name of the "relativity of knowledge," founded upon a truism, but distorted into a falsity. Unable to shake the conviction of the reality of a known objective universe, and therefore unable to take the field in its only logical form of Solipsism, subjectivism nevertheless covertly saps the truth of science in a manner which hides its own fatal inconsistency. It declares that all knowledge is merely relative to human faculties, and it adroitly pushes this principle as if relativity were unreality. A quotation from Mr. Frederic Harrison's essay on "The Subjective Synthesis" will well illustrate the mode of its attack:—

"The truly relative conception of knowledge should make us habitually feel that our physical science, our laws and discoveries in Nature, are all imaginative creations—poems, in fact—which strictly correspond within the limited range of phenomena we have before us, but which we never can know to be the real modes of any external being. We have really no ground whatever for believing that these our theories are the ultimate and real scheme on which an external world (if there be one) works, nor that the external world objectively possesses that organised order which we call science. For all that we know to the contrary, man is the creator of the order and harmony of the universe, for he has imagined it."

This subjectivistic scepticism, be it remembered, has its root in the Nominalism which universally prevails in philosophic circles, and which has profoundly affected those scientific men who, being more than mere specialists, have felt their influence; and it shows exactly where science must seek aid from a renovated philosophy, if it is to escape suffocation by the fire-damp of scepticism engendered by its own operations. "If every genus is only a mere word," says a writer in the *Encyclopædia Britannica*, "it follows that individuals are the only realities, and that the senses are at bottom the only sources of knowledge. And not only so, but on this theory no absolute affirmation respecting truth is possible, for such an affirmation involves of necessity a general idea, which *ex hypothesi* is destitute of real validity. Hence we have scepticism at the next remove." Mr. Harrison is an illustration of the literal accuracy of this statement. But the case is not bettered if the genus is "only a mere" *concept*, instead of "only a mere word"; for Extreme Nominalism and Conceptualism (the latter of which this writer accepts) are equally sceptical in their implications, since they equally disown the objectivity of relations. Only the theory of Relationism fully meets the case.

The doctrine of the "relativity of knowledge," under cover of which subjectivism makes its attack on the objective truth of science, undoubtedly rests on a truism: namely, that knowledge is itself a relation between the knowing and the known, and that nothing can be known except as it is known by the knowing faculties. This, surely, is a very innocent proposition. It simply means that man cannot know everything; it does not at all mean that he does not know what he knows. That human knowledge of the cosmos is incomplete, partial, inadequate, could be controverted only by a consistent subjectivist, to whom the cosmos is simply the sum of his own sensations or consciousness, which, again, exist only as they are known. But the doctrine of the relativity of knowledge, properly construed, has a real validity and profound significance to the objectivist, since it states the fact on which the total activity of science rests—the fact that human knowledge is small, and can be

increased. There is nothing whatever in this doctrine to discourage science or impugn the solid character of its acquisitions. From the very nature of the case, nothing but relative knowledge is possible. Increase the number and scope of man's cognitive faculties till his science becomes omniscience: his knowledge will still be relative, being the relation of knowing and known, and that unconditionally. In fact, "non-relative knowledge" is a contradiction *in adjecto*. As Prof. Ferrier puts it in his *Remains*: "To know a thing *per se*, or *sine me*, is as impossible and contradictory as it is to know two straight lines enclosing space; because mind by its very law and nature must know the thing *cum alio*, *i.e.*, along with itself knowing it". The doctrine of the relativity of knowledge, therefore, is a truism so far as it asserts the co-essentiality of subject and object to the relation of knowledge; it is a falsity and absurdity so far as it asserts the non-knowableness of the object by the subject in that very relation of knowledge. And the blade of subjectivism is shivered in its very grasp by the adamant shield of science.

Nevertheless it remains true that the progress of science is retarded and embarrassed by the prevalence of a philosophy which secretly undermines its results, controverts its fundamental postulate of the knowableness of the objective universe, and dooms it to an imperfect comprehension of the principles which alone justify its practical procedure. A philosophical vindication of those principles which should establish the scientific method, so resplendently successful in its empirical employment, upon an impregnable rational theory, could not fail in ten thousand ways to promote the advancement of knowledge, and dissipate that cloud which hangs over the deeper thought of our own age—the cloud of an intellectual consciousness at war with itself. Every attempt in this direction should be greeted with a hearty welcome.

Let us review the situation, and state the problem distinctly which Philosophy has now to solve.

Subjectivism in philosophy takes its stand, consciously or unconsciously, on Nominalism. Its fundamental principle is the law, accepted by both the Transcendental and Associational schools, that things conform themselves to cognition, not cognition to things. The necessary corollary of this law is the *separability of phenomena and noumena*, phenomena having their existence solely as modifications of the individual consciousness, and noumena either having no existence at all or else existing solely as the unknown and unknowable causes of phenomena. Of these two alternatives, the former alone is logically consistent

with the premisses of subjectivism; for, since "cause" is a universal term to which Nominalism denies all objective validity or significance, it is a term patently inapplicable to anything beyond the sphere of subjective consciousness. Hence the final outcome of all thoroughgoing subjectivism is absolute egoistic Idealism or Solipsism—a mere cosmos of objectively causeless dreams.

Objectivism in science takes its stand, consciously or unconsciously, on Relationism. Its fundamental principle is the law of Objective Verification,—that cognition must conform itself to things, not things to cognition. The necessary corollary of this law is the *inseparability of noumena and phenomena*, phenomena being the "appearances" of noumena, and noumena being that which "appears" and is partially understood in phenomena; and they have their inseparable existence, not only in the mind, but also in the cosmos which the mind cognises. The only utility in retaining the distinction at all is to mark the distinction between complete and incomplete knowledge—noumena being taken to denote things-in-themselves as they *exist* in all the complexity of their objective attributes and relations, and phenomena being taken to denote these same things-in-themselves so far only as they are *known* in their objective attributes and relations. The final outcome of scientific objectivism is a constantly growing knowledge of the real cosmos as it is, in which the human mind has its proper place and activity in entire harmony with cosmical laws.

This is the unequivocal issue between the two modes of viewing the universe which are confusedly and half-consciously struggling for supremacy in the modern mind. Philosophy is prevailingly subjective, but not wholly so; there are occasional symptoms of secret restiveness among philosophers under the iron yoke of Nominalism, such as the appeal of the Scotch School to "Common Sense," the "Natural Realism" of Hamilton, the "Reasoned Realism" of G. H. Lewes, the "Transfigured Realism" of Mr. Herbert Spencer, the "Inferential Realism" of Rev. J. E. Walter and many others, the unmistakably objective tendencies of the historian Ueberweg—who explicitly declares that "the objective reality of relations can be affirmed with at least as much reason as it can be disputed" (*Hist. Phil.* I, 374), and that "the demonstrative reasoning by which we go beyond the results of isolated experience, and arrive at a knowledge of the necessary, is not effected independently of all experience through subjective forms of incomprehensible origin, but only by the logical combination of experiences according to the inductive and deductive methods on the basis of the order immanent in things themselves" (*Ibid.* II, 162),—as well as of others that might be named in this connexion. But no one,

even among these uneasy insurgents against the established tyranny of Nominalism, seems to comprehend exactly what the tyranny or who the tyrant is; no one of them seems to have traced back the origin of his oppression to the half-forgotten decision, arrived at centuries ago by the now despised Schoolmen, as to the nature of universals; and no one seems to comprehend precisely what will free him from fetters that are invisible, yet strong as steel. Hence every one of them continually falls into concessions which rivet the fetters more closely about his limbs. The hostility secretly existing and working between the subjectivist and objectivist methods, even in one and the same mind, is one of the curious and striking features of contemporaneous thought, and will not fail to arrest the attention of the future historians of philosophy. Yet this antagonism between science and philosophy is really unnatural and injurious in the last degree, for they are the natural complements and allies of each other. Science needs the intellectual orderliness and systematic unity which philosophy alone can create; philosophy needs the verified basis and thoroughly objective spirit of science. Hence our age presents no problem more profound in its nature, or more wide-reaching in its bearings upon the intellectual interests of mankind, than this:—

How to identify science and philosophy, by making the foundation, method, and system of science philosophic, and the foundation, method, and system of philosophy scientific.

The theory of knowledge which is predominant in both the Transcendental and Associational schools of modern philosophy has been clearly set forth in the preceding pages, traced to its source in the wrong answer given by mediæval Nominalism to the questions of universals, and shown to impart even to so-called modern philosophy a thoroughly Scholastic character. The theory of knowledge which underlies the practical procedure of modern science has also been clearly set forth, although only so far as its fundamental principle is concerned, under the name of Scientific Realism or Relationism,—the full development of which will involve the creation of a new and comprehensive philosophical system. The irreconcilable antagonism of these two theories, the disastrous consequences of it both to philosophy and science, and the necessity of a profound revolution in the method of philosophy in order to bring it into harmony with the now thoroughly established scientific method, have likewise been shown, together with the precise nature of the problem which philosophy has now to solve, in order to modernise itself in a true sense.

All that is here possible is simply to state the problem and

the general principle on which alone it can be solved; a full solution of it is the great desideratum of science and philosophy alike. For a full solution of it will permanently heal the breach which now disastrously divides them, and for the first time render possible the harmonious coöperation and concentration of all the powers of the human mind for the discovery, establishment and application of cosmical truth. What has been here done is to show that this greatest of modern problems is only, under a new form, that ancient and never satisfactorily answered question of Universals which, for hundreds of years, absorbed the brightest intellects of Europe,—to submit to the bright intellects of our own time, together with the old half-answers to that problem historically known as the theories of Nominalism and Realism, a third, new and full answer in the theory of Relationism,—and to inquire whether this theory will not suffice to bring about the greatly needed identification of Science and Philosophy.

FRANCIS ELLINGWOOD ABBOT.

II.—PERCEPTION.

THE problem of Perception is the most fundamental in philosophy. The various systems of thought, Idealism, Realism, Nominalism, Conceptualism, Materialism, Spiritualism, Scepticism, Criticism, &c., take their characters and designations from the various manners in which it is solved or attempted to be solved. Unfortunately it is a problem almost as difficult to state as to solve. Nor is this at all astonishing. A complete statement of it would be a solution of it, for the plain reason that the whole or nearly the whole of the difficulties connected with it arise from the indefiniteness of the terms in which it is stated, and must be stated. This indefiniteness is due to the fact that no terms have any definiteness except such as they receive in perception itself or in a theory of perception. While all other problems can refer for definitions of their terms to the theory of perception, the problem of perception itself has no such resource. Whence it follows that any statement of this problem is already an attempted solution, and that a complete solution is only a thoroughly comprehended statement. When, for example, we ask: How can an object manifest itself to a subject? or, How can a subject enter into and grasp the being of an object? we assume that we know exactly what subject, object and manifestation are, whereas the truth is that we have only a very imperfect and provisional knowledge of the meaning of these terms. If our knowledge of them were exact, the problem would be solved; for these terms have no meaning except as mutually related. A subject to which no object is manifested; an object which is manifested to no subject; a manifestation which does not manifest an object to a subject, are all contradictions in terms. It follows that, in tracing the history of the problem of perception, it is a matter of comparative indifference whether we consider the successive formulations of it or the corresponding solutions.

The problem of perception, being due to an extension of reflection beyond the ready-made objects of thought to the act whereby these become objects, necessarily appeared comparatively late in the involution of thought. Since, moreover, reflection always operates with forms determined by past experience, it necessarily endeavours to subsume every new object under forms so determined. Only when the new object persistently refuses to be so subsumed, does this resistance give rise to a new and adequate form in the mind. This process is often a very slow one, and the mind sometimes goes on for

centuries trying to subsume new objects, first under one old form, then under another, before it is brought to admit that an entirely new form is necessary. This has been conspicuously the case with the act of perception. Since the days of Parmenidès, when this act first became an object of thought, down to the present, attempts have been made to subsume it under some form determined by experience of objects due in part to the operation of this act, but not including it—at least explicitly. In other words, all the solutions hitherto proposed of the problem of perception have been attempts to subsume perception under one or more of its own objects not including itself. If ever the problem is to reach a definite solution, this solution will be a mental form adequate to the act of perception.

Few things are more persistently misunderstood than the nature and limits of scientific solution, and the reason why solutions are demanded. The demand for a solution or explanation always implies that some fact or group of facts, as known, does not satisfy the conditions of thought, in other words, does not form a complete object and must, therefore, be supplemented by something sufficient to convert it into such. It is clear that nothing could present itself as a problem to a mind that was not conscious, at least in an implicit way, of what it required to constitute a complete object of thought. We could never know that a thing was a part and required to be supplemented, without knowing what was meant by a whole. We should never know, for example, that an accident could not exist apart from a substance, an act apart from an agent, an event apart from a cause, &c., unless accident, act and event were recognised as only parts through comparison with a whole. It is, of course, not necessary that *the* whole, whereof they are parts, should be before the mind, but merely that the general type of wholeness should be there. In respect to objects recognised as complete, that is, as subsisting by their own act, there is no problem possible. A problem always sets out with certain known facts and then asks: What must be added to these facts in order to convert them into a complete object? It is this supplementary something, which, when found, is the solution, converting the problem into a theory. But here it may be asked: How do we recognise a complete object of thought when we find it? Evidently, only by seeing that, however reflected on, it does not develop *necessary* relations to any other, in other words, that it might and would exist unchanged, even if everything else, including ourselves and the act whereby we think it (unless, of course, the object is that act), did not exist.

But here we must be on our guard against those philosophies

which try to show that, according to this view, there is but one complete object possible, *viz.*, the Absolute. This doctrine, which conducts directly to pantheism and fatalism, is due to two confusions, neither of which is difficult of detection. The first is a confusion between a complete being, which, as self-subsistent, is not predicable of anything (*οὐτ' ἐν ὑποκειμένῳ ἐστὶν οὔτε καθ' ὑποκειμένου τινὸς λέγεται*), and the idea of complete being, which, as merely a standard of completeness, is equally applicable to complete and incomplete being, to aggregates of either or both, and even to the negation of being. Indeed, without it, the negation of being would be impossible. When the latter is substituted for the former, it gives a being determined by all possible attributes, compatible and incompatible, a being so complete as to exclude every other. This being, necessarily designated by negative terms, is, of course, unthinkable; nevertheless, like the square circle, it can be infinitely talked about, a fact which explains why the Absolute is so often said to be inscrutable. Plainly, the unthinkable and self-contradictory, if held to exist, will remain for ever inscrutable. The second confusion, in great measure due to the first, is that made between the immanent, self-complete act by which beings exist, and which makes them adequate objects of thought, and the transient acts whereby these beings relate themselves to each other. When these latter are substituted for the former, all beings seem to merge into one, and the only object that remains for thought is a boundless universe of transient acts performed by nothing—an infinite becoming. It is these two confusions that lie at the basis of materialistic evolutionism and idealistic self-determinism. Indeed, Hegel, the prince of confusionists, glories in both in their worst form; to such an extent that he expressly identifies being, or the self-sufficient act, with nothing or the absence of all act, and both with becoming, which is a transient act. Like his predecessors, Kant, Fichte, and Schelling, he includes the immanent act of the subject and object of thought in the transient act whereby, as such, they are related, and thus turns thought into a series of relations that relate nothing. The truth is, that the Absolute, so far from being the only complete object of thought, is no object of thought at all. Indeed, there is no such thing as an Absolute, an Infinite, or even a Universe, except in this sense that the notion of being, which is necessary to every object of thought, is of unlimited application.¹ All objects of thought

¹ There is a great deal talked about "universal ideas". The phrase is a contradiction in terms. All ideas are singular; it is only their application that is universal.

are finite,¹ and when adequate are conceived as self-existent and independent. That they should have any numerical limit seems in no way necessary. In respect to such adequate objects, there is, as we have said, no problem possible. A problem always deals with the transient acts, whereby one such object relates itself to another, and is completely solved only when this act is so supplemented by the objects which it relates, as to be a complete object of thought. In other words, a problem is solved only when the act constituting the relation in question is seen both as it is in its principle and in its term, and seen to be grounded in and determined by the essential and permanent nature of the two. A solved problem, that is, a scientific theory, therefore, contains five elements: (1) a relation, which is always a transient act, (2) the principle of this act, (3) the term of this act, (4) the mode of the principle as determined by the act, (5) the mode of the term as determined by the act; and these must in no way be confounded with each other. A problem as propounded may contain more or fewer of these elements; what it demands in every case is that the rest should be discovered. So long as one of them is missing, so long the conditions of complete thought are not satisfied and so long there is no complete solution or comprehension. If we apply these results to the problem of perception, we shall see that a solution of it must consist in discovering a permanent principle whose act perception is, a permanent term in which that act ends, the mode of the principle as determined by the act, and the mode of the term as determined by the same. The problem in question may be propounded in many ways, according as we suppose we know more or fewer of the elements that enter into the solution; but since each of these elements must necessarily appear in perception itself, when thoroughly integrated and analysed, its most correct form is: What is perception? If we hold before our minds the notion of perception, until we bring into clear consciousness all that is necessary to make it a complete concept, and then carefully analyse that concept, we shall arrive at a full solution of the problem.

This method of dealing with it is, unfortunately, very different from that which has been pursued hitherto. If we look back

¹ It will probably be said that we cannot think a finite without thinking the infinite along with it. If repetition by reputed authorities could make a statement true, this ought certainly to be so. Nevertheless, it is profoundly false. We might as well say that we cannot think the thinkable without thinking the unthinkable, which is a manifest absurdity. Indeed the whole doctrine that we cannot think a thing without thinking its negation is due to a confusion of separating perception with distinguishing reflection.

over the history of the problem, we shall see that all who have attempted to solve it, have sought to do so by a process of synthesis, by the identification of certain elements tacitly assumed as given outside of perception. Indeed, in all cases, identification, in the form of mechanical interpenetration, has been assumed as the explanation of perception. It seems to have been supposed that if we could show the thing known to interpenetrate the thing knowing or otherwise to form a continuous unity with it, there would be no further difficulty. Naturally enough, this notion finds its most naïve and undoubting expression in Parmenidês to whom the problem of perception seems first to have propounded itself. This philosopher tells us in so many words that "thinking and being are the same thing". Empedoklês is governed by the same assumption, when he tells us that "we see earth with earth, water with water," &c., and Plato, even after having, in the most inconceivable way, furnished the mind with all possible ideas, finds no other way of bringing the external world into connexion with these than by positing the same identity. The eye is able to see only because the fire or light contained in it goes out to meet, and identify itself with, the light radiated or reflected from external things (ἐκπίπτων ὁμοιον πρὸς ὁμοιον, *ἑνυπαρχὸς γενόμενον*, ἐν σῶμα οἰκειωθὲν συνέστη. . . . ὁμοιοπαθὲς δὴ δι' ὁμοιότητα πᾶν γενόμενον, κ. τ. λ., *Timaios*, 45, C.). Aristotle is entirely right in attributing to him the dictum, *Similia similibus cognoscuntur* (γινώσκεισθαι τῷ ὁμοίῳ τὸ ὁμοιον, *De Animâ*, A, 2, 7; 404 b. 16 sq.); but even Aristotle himself is completely in thrall to the same prejudice.¹ Although he has much to say of the manner in which the external world finds its way to the soul, he knows no other way of explaining how it is cognised when it arrives there than by saying that it identifies itself with the soul—the sensible with the sensitive soul, the intelligible with the intellective soul. His notion is that external things present themselves to the senses, and are *felt* by being identified with these; their forms then pass on to the intellect and are *cognised* by being identified with the forms of it. The soul, therefore, in a certain sense, is everything. This absurd result, of course, follows directly. If like can be known only by like, everything that is known must have its like in the soul; in other words, the soul must be a microcosm. Being such, why it should trouble itself about the macrocosm, which after all

¹ Ἡ ψυχὴ τὰ ὄντα πῶς ἐστὶ πάντα. ἡ γὰρ αἰσθητὰ τὰ ὄντα ἡ νοητά, ἐστὶ δ' ἡ ἐπιστήμη μὲν τὰ ἐπιστητά πῶς, ἡ δ' αἰσθησις τὰ αἰσθητά, *De Animâ*, Γ, 8, 1; 431 b. 21 sqq. Ἡ ἐπιστήμη τῶν καθόλου· ταῦτα δ' ἐν αὐτῇ πῶς ἐστὶ τῇ ψυχῇ, *Ibid.* B, 5, 6: 417 b. 22 sq. Ταῦτόν νοῦς καὶ νοητόν, *Metaph.* XI, 7; 1072 b. 20.

can be known only in so far as it is identical with the microcosm, seems a mystery. If the bigness of the macrocosm can be known only through the bigness of the microcosm, it is hard to see how the difference in bigness could be discovered.

The Parmenidean doctrine, that the mode of perception consists in the identity of subject and object ran through the whole of ancient philosophy, as well as through that ancillary continuation of it known as Scholasticism. It is nowhere more strongly affirmed than in Plotinus and in Thomas Aquinas. The former tells us "Being and intelligence are one nature" (*Enneads*, V., 9, 8); the latter, that "the sensible in act is the sense in act, and the intelligible in act, the intellect in act" (*Sum. Theol.* I., 14, 2, c). It is this doctrine that lies at the basis of all the mysticisms which for more than two thousand years have exercised, and which still exercise, so profound an influence upon all fine minds that have not sufficient vigour to make clear to themselves the meaning of imposing, time-honoured phrases.

It is the same doctrine, expressed in a slightly different form, that pervades and shapes the whole of modern thought respecting the nature of perception. Though the psychological method of modern thought began with Descartes, it was by Locke that it was consistently applied to the facts of consciousness and made to evolve the principles whereby the course of that thought has been determined. As against ancient philosophy, Locke's system seemed a great simplification. The Peripatetics and, after them, the Schoolmen had assigned to the mind two sets of cognitive faculties, those of sense and those of intellect, with corresponding terms in the outer world, the sensible or particular, and the intelligible or universal. These faculties and terms had been assumed as given, and no inquiry had been instituted as to their nature or genesis. And this was natural enough; since the question that formed the spring of ancient thought was essentially different from that which keeps modern thought in motion. The former asked: Since all *things* that we see, hear, touch, smell, taste, are in motion (*πάντα χωρεῖ*), whereas knowledge (*ἐπιστήμη*) implies fixity, how can there be any knowledge? The reply, hinted at by Hērakleitos, when he said: "Eyes and ears are evil witnesses to men with barbarous souls," was clearly pronounced by Plato, who said: "Though things heard, seen, &c., move, their ideas do not, and these alone can be known. Sense is not knowledge, but a mere spur bringing to remembrance forgotten ideas. The intellect alone knows, and it knows only eternal ideas." This reply rescued the possibility of knowledge, only by making man a fallen creature, abandoning the world of sense, in which he has

to live and act, as a deluding shadow, and creating or imagining a supersensuous world, which in some mysterious way he had once known, but which, in some equally mysterious way, he had come to forget. As a dream or a romance, this was not very bad; to be considered as anything else it has no claim. Aristotle deprived this reply of its romantic shape, without altering its nature. He merely made Mind (*Noûs*), instead of heaven, the *locus* of ideas (*τόπος εἰδῶν*), plunged duplicates of these (*λόγοι ἔνυλοι*) in matter, and asserted that the former recognised the latter by identification. This was the best answer that the ancient world was ever able to give to the fundamental question of its philosophy. All the subsequent thought of antiquity and the middle ages was devoted to attempts to make this answer intelligible. These attempts, utterly and uniformly abortive, in spite of endless subtleties and the invention of some half dozen distinct intellects with distinct functions, finally led to the question which underlies all modern thought: What is knowledge?

As soon as this question was propounded, the faculties of the mind and their terms could no longer be taken for granted without examination. Locke saw this very clearly and accordingly undertook to give an account of knowledge without assuming them. Unfortunately, however, he adopted an utterly false method of procedure, and one which the experience of ages might have shown him was futile. Instead of taking one act of knowledge and placing it under his mental microscope or in his mental crucible, he began in the old way with what, without any authority, he assumed to be the factors of knowledge, and tried to see whether he could not, by making these unite or interpenetrate, produce perception and knowledge. These factors were not only fully organised products of the very act he was trying to explain, but they were the results of one unacknowledged and most incorrect dismemberment of that act. In other words, Locke, instead of analysing thought to find out its factors, undertook to construct thought out of what, without scientific analysis, he supposed to be its factors. It was just as if, in order to find out the nature of wine, he had said to himself: "Wine is a red liquid; let me see how water and red ink must be put together in order to make wine." He said: "Knowledge is the effect produced upon a sensitive tablet partly by external things and partly by itself. Let me see how this effect is produced." How it was produced he never did see and never could see, and his conclusion was: Knowledge is made up of ideas of sensation and ideas of reflection. Of course, such a theory could be made plausible only by the surreptitious use of a whole series of unacknowledged and

unexplained thought-factors; but Locke was not sufficiently skilled in the analysis of thought to discover this. Indeed, it was not discovered until Kant came. Meanwhile, however, other thinkers, setting out with Locke's principles or prejudices (for they are nothing more), showed that, in accordance with these, there was no need for assuming either a tablet or anything making impressions upon it; that impressions themselves, in a more or less vivid guise, coupled with certain fictions or tendencies to feign, were amply sufficient to account for the facts. The drawback to this conclusion was, that, instead of explaining knowledge, it proved that knowledge was all fiction. This was Hume's result, acknowledged and set forth as the highest wisdom. The truth was, Hume tried to construct thought out of the matter of thought alone, using, indeed, its forms, because otherwise he could not have spoken, but calling them fictions and delusions. How they could be fictions, since there was no mind to feign, or delusions, since there was no mind to delude, will ever remain one of the mysteries of wisdom. Hume's result, absurd as it was, was, nevertheless, not without great value. The pity was that he was not more generous with his fictions. Naturally enough he tried to be sparing with these, since otherwise his system would have lost all its plausibility. Still, it was a most valuable thing to have shown that thought contains "fictions," which can in no way be referred to, or accounted for by, impressions, and that without these fictions thought would be impossible. It was upon these fictions that Kant laid hold and built up his system. Instead of trying to limit their number, he looked about everywhere in order to find them and make a list of them, and, instead of considering them fictions, he called them forms of thought, carefully to be distinguished from its matter. His search for these "forms" was so productive that, when his list of them was complete, he could not tell what was left as matter. In fact, matter became as much a thing of desperation with him as form had been to Locke. He could not exclude it, and yet he could tell nothing about it. So far he was inconsistent. Hegel tried to do for Kant, what Hume had tried to do for Locke, *viz.*, to make him consistent. In other words, he tried to construct cognition, that is, the world as it appears in thought, out of the forms of thought alone. In his system, therefore, thought and the universe are convertible terms: thought is being. In this doctrine, which lies at the basis of Hegel's entire system, the old notion of Parmenidés reappears as the result of more than two thousand years of thinking. Hegel made a desperate attempt to justify it, by denying the principle of con-

tradiction and thereby implying that there was no such activity as thought at all.

The course of thought up to the time of Hegel's death had conclusively shown two things, *first*, that cognition could not be explained by the identification of its principle and term, and *secondly*, that it could not be explained by identifying its matter with its form. It is one of the unaccountable things in the history of thought, that these results, clear and undeniable as they both are, have had almost no effect in calling forth fresh attempts to make clear the nature of cognition or perception. Instead of this, they have rather tended to disgust thoughtful people with the entire problem, and make them turn from it to a consideration of the physiological conditions of perception. The strangest thing of all is that not only Locke and Kant, but even Hume and Hegel, who reduced the systems of these to most patent absurdity, still find followers. The only person who seems to have profited by the results specified, was Rosmini, the chief catholic thinker of the first half of this century. This philosopher, after carefully studying the entire history of the problem of cognition and observing wherein the attempted solutions of it had failed, resolved to subject cognition¹ to a fresh analysis, and to report carefully what elements he found in it, and how he found these elements connected. The result was an entirely new theory of perception, or, which is the same thing, of the origin of ideas. This theory, with very slight modifications, seems to answer all reasonable requirements.

In undertaking to study perception, we must begin by accepting it as it is and, comparing percept with percept, try to find out what they have in common. This common element will of necessity be what is essential in perception. Now, even a very slight consideration shows that every perception, even the simplest, is a virtual judgment in which some attribute is asserted to form part of a given concept. In by far the majority of perceptions, the concept which forms the subject of the judgment and the attribute which forms its predicate are previously known, and are only *recognised* in the act of perception. But, since all such concepts and attributes could not have been previously known except by acts of perception, the question returns with regard to them, and repeats itself until we come to a perception such that neither its subject nor its predicate could have been perceived separately—a perception whose subject and predicate must have come into consciousness in the very

¹ Throughout this paper I have used the terms *perception*, *cognition*, and sometimes even *thought* as synonymous. This is not likely to lead to any confusion, so long as we are dealing merely with the constitution of thought.

act of judgment which first pronounced them. What this perception is cannot be a matter of doubt. It takes the form: *This is*—a judgment in which *this* represents a felt entity, and *is* the same entity as distinct from feeling, or as performing an act which is not felt. This means that even in the simplest act of perception there is not only feeling, which by itself can never be an object and therefore by itself never can be known, but also another element which serves to convert feeling into an object. What this element is, is sufficiently clear. It is what we name *being*. Everything that is perceived must *be*, and being is what is essential to an object.

A simple perception, then, is a felt entity or an existent feeling, of which neither element can be known by itself. It is, moreover, true that a single such perception would not constitute knowledge in the ordinary sense of the word. It would merely constitute what in Aristotelian language would be termed *δυνάμει ἐπιστήμη* or potential knowledge; in other words, a mind: for what else is a mind but an existent feeling? There is a great deal said at the present day against such notions or expressions as 'potential knowledge,' and those who use them are accused of committing the absurdity of going behind consciousness. There is not the slightest absurdity about the matter. In a certain sense, consciousness goes behind itself every time that it reflects upon one of its past states, and it is in no other sense that it goes behind itself when it recalls its potential state. It is quite true that I never could have known one, *as* one, without knowing two; but it is equally true that I never could have known two without *first* knowing one; for *two* means nothing but *one* repeated. The truth is there are two kinds of knowledge, the one potential or *anoetic*, and the other actual or *dianoetic*. The one that is known before two is known *anoetically*; the one that is known after two is known *dianoetically*. When I know one *dianoetically*, that is, know it *as* one, in opposition to two, I can easily go back and see that I knew it before two, although only *anoetically*. In the same way, although a single perception does not constitute knowledge in the *dianoetic* sense, there is no reason why such knowledge, after it is constituted, should not go back and recognise that there was a first perception which formed the condition of all others, and which remains an essential constituent of all the others, or why it should not be able to analyse and consider that first perception. Such analysis shows that the first perception is an existent feeling, in other words, a permanent reality.

Such a reality, if left to itself, might, and certainly would, remain for ever without what we call actual knowledge or self-

consciousness. In other words, it would remain for ever utterly incapable of giving itself determinations or creating in itself distinctions of any kind. It is only when several such realities coexist that such distinctions or determinations appear. In dealing with the relations of realities at this stage, we must divest ourselves of the notion that these exist outside of each other or inside of each other in *space*: if they did, they would certainly never relate themselves to each other. As we shall see, actual space is the result of their relation, not the condition of it. The only relation in which realities stand to each other, is that which is really the foundation and type of all relation, *viz.*, reciprocity of action and passion. This relation is clearly founded in the nature of feeling, which always has an active and a passive side, and cannot be any further analysed or reduced. The Schoolmen held that *actio sequitur esse*, and they might likewise have said that *passio sequitur esse*; but it does not follow that, when two realities relate themselves, their actions or their passions will be the same either in degree or in extent. It does not even follow that the action which the one exerts upon the other will be returned to the actor, and, even if *some* action be returned, it may be different both in kind and degree from that originally exerted. There is no reason to assume that all realities are similar. What happens when one reality relates itself actively to another is this: A modification takes place in the feeling, and a determination in the being, of that reality. A metamorphosis, equivalent to the birth of consciousness, then follows. The reality divides itself into feeling principle and felt term, and these, as clothed with being, so to speak, become respectively subject and object. The felt term invested with being appears as infinite and eternal space. Hence the new modification appears as a limited object in space and time. In fact, it turns out that the primitive perception contained, in an anoetic or potential form, what now shows itself to be an intelligent and sentient subject feeling infinity and intuiting eternal being. Of course, these elements of perception appear at first in a most confused state. It is long before they become entirely and distinctly defined in consciousness; indeed, in most consciousnesses they rarely become defined at all, although the names for them are familiarly used. With the great mass of mankind the modifications of the primitive perception are all that are ever cognised: the elements of that perception itself remain to the last in a half-anoetic state. They are brought out only when men begin to philosophise, and it is only the smallest portion even of professed philosophers that attain clearness with respect to them all. How few, for example, are able to

see that the primitive perception contains implicitly both infinity and eternity!

From the point of view of the ordinary theories of perception, it is not difficult to formulate objections to that here proposed, especially as it is set forth in a narrative rather than in a genetic way. A few of these objections may be glanced at.

First, it may be said: "Space is not a feeling; all feelings are necessarily limited and space is unlimited". This objection contains a *petitio principii*. Space, *as thought*, is, of course, not a mere feeling, but feeling inherent in being, which makes it an object. If, apart from being, it is not a feeling, it is nothing. The peculiarity of space is that every assignable part of it is outside of every other; but such outsideness could never be recognised except by something that felt all the parts at once. Moreover, that all feelings are limited is a mere assumption. Feelings would never be recognised as having a common element or be classed together, unless they were all variations of a single feeling, which single feeling, therefore, cannot be limited. Limit, which is itself a feeling, always implies that there is something beyond it.

Secondly, it may be said: "Being is neither an intuition nor is it eternal: it is a mere abstraction from feeling or sensation". Now, it is tolerably evident that we cannot abstract from a thing what is not in it, and being is not in feeling; still less is eternal being. No man ever felt a past or a future feeling. Feeling, *as such*, is therefore confined to the present, whereas being cannot be thought except as without beginning or end in time. It is utterly beyond our power to think time without being. But, if being is not in feeling, it must be presented to the mind in some other way. That other way we call intuition. If it be said that intuition itself is a kind of sensation, the reply is that the two differ as the absolutely permanent differs from the absolutely transient, and that the one is by itself intelligible, while the other is not. There are other differences.

Thirdly, it may be objected that, on this theory, all thought remains purely subjective and that each reality never can know anything more than its own modifications. It is just the merit of the theory that it meets and overcomes this difficulty, which must for ever remain insoluble to any theory that would construct thought out of feeling alone. A feeling, a modification, as such, is not an object and, therefore, can never be perceived. In order that it may be perceived it must become an object, that is, it must be placed outside of the subject and, so to speak, looked at. But since it cannot be placed outside of the subject as passion, it must be so placed as action. Hence, to make feeling an object means to intuit the other, that is, the active

side of it. But to see anything as action means to see an agent performing ; hence, in perception there is always seen an agent which is not the perceiving subject—unless, of course when that subject is itself the object of perception. It is one of the most evident things in the world that the notion of action could never arise from feeling, even if, *per impossibile*, that could be objectified by itself. Feeling, as such, is pure passion,¹ and even if it could be made permanent and examined, it would not be found to contain action. Action can be only intuited, and it is just this *intuition* of action, or of an agent in action, that is the essence of perception as distinguished from sensation : it is this that enables the subject, so to speak, to go outside of itself. This phrase “to be outside of itself” is a great bugbear to most people, who understand it to mean, to be in a different part of space from that which it occupies, while still occupying the latter. This, of course, is a pure impossibility. But, plainly, that cannot be in two spaces which is not in space at all, space being, on the contrary, in it. When it is said that the subject goes outside of itself, all that is meant is that it intuits something different from itself, and that this is intuited as action. The instant we say that anything *is*, that same instant we are outside of ourselves, as subjects, and looking at things as acting upon us. All action, as seen in its purity without determination, is being. It may, therefore, be said that the first perception, the first anoetic reality, contains in itself the essence of being, or, in other words, that the mind, from its very constitution, has a permanent intuition of pure activity. This activity becomes determined for it by feeling. It is this curious state of things that has given rise to all the innumerable discussions concerning the notions of Substance and Cause. Those thinkers who hold that all knowledge is feeling in some form or other, cannot, of course, find any explanation of these notions, and are, therefore, obliged to throw them away as mere meaningless fictions or, at best, as reducible to mere succession of feelings. The truth is, substance is being in its simple immanent act, or in its relation to space, whereas cause is being as related to particular feelings.

Fourthly, it may be objected that, from this point of view, there can be but one being in the universe. This does not follow in the least. What is true is that there is but one essence of being in the universe, which means that, if we remove all the determinations which make distinct beings what they are, being will

¹ See an excellent essay on “The Feeling of Effort,” by William James, M.D., in the *Anniversary Memoirs of the Boston Society of Natural History*: Boston, 1880 (summarised in MIND XX. 582). It is there shown that we never feel activity as such.

be a simple anoetic unity. But this is a mere paltry tautology, which may be expressed otherwise, by saying that being, before it is predicated, is one, whereas, after it is predicated, it is many, or by saying that being is a unity only through indistinctness. Allusion has already been made to the evil effects of the confusion between predicated and unpredicated being.

Fifthly, it may be urged that our theory confounds time with eternity. This must be admitted and defended. Time and eternity are the same. But it will be said that time passes and that it is the very essence of transience, whereas eternity is an everlasting now. The answer is that time does not pass, that time has neither past, present nor future. Time remains, and things, that is, feelings pass in it. It is the condition of transience, but not transience itself. How could I ever know a thing as past, if the time in which it happened had utterly vanished? The truth is, there is a most inveterate confusion prevalent with reference to the nature of time. This confusion has arisen from a very loose use of the word *time*, which is often taken to mean groups of feelings related to each other as causes and effects, or as successive *in* time. In this way we speak of yesterday, to-day and to-morrow as portions of time, whereas we really mean that they are certain groups of events that happen *in* time. Without these events there would be no yesterday, to-day or to-morrow. When we think we are measuring time, we are merely measuring the rapidity with which events pass *in* time. Everything that passes, passes with a certain velocity, which may be measured by comparison with other velocities. But we cannot measure the velocity of time. We can never say: Time moves faster or slower than this bullet, than the sun, than the hands of a clock. It requires only a very slight consideration to see that if time passed, there could be no difference of velocity in anything, and, indeed, that consciousness would be utterly impossible. It is because feelings, which are absolutely transient, are seen in time or in eternal being, which does not pass, that they are known. There are numerous other arguments which go to prove that time does not pass.

Sixthly, it may be said that our theory does not account for the origin of mind. This likewise must be admitted, and the rejoinder added, that any theory which accounted for the origin of mind would be accounting for what has no origin. How can that which in itself contains time have an origin in time? Our theory shows its *constitution*.

Seventhly, it may be said that our theory does not account for the manner in which external things communicate with the mind, or show the bridge between them. Such an objection would only show that the theory had been completely misunder-

stood. External things are external only in so far as they are in communication with the mind, and it is this communication that constitutes their externality. The objection ought rather to take the form: How can anything known be external to the mind? an objection which is in effect only a statement of the old puzzle of Parmenidès: How can I know except by being what I know? This puzzle is sufficiently answered by the counter inquiry: How can I know anything if I am that thing, seeing that in that case there is no object and no subject of knowledge? It is, as we have seen, of the very essence of perception that the subject should by an intuition go outside of itself. The whole physiological inquiry in regard to the functions of brain and nerves in perception goes to show that they are merely means whereby the influences of one reality upon another are increased, separated into classes and directed, but lends not the least aid in showing how these influences are appropriated by the mind as objects. It is a curious thing that when the brain and nerves are in a healthy state, they are themselves no objects of perception to the subject that uses them, and that they never at any time show the real influence which they serve to communicate. For example, no examination of them shows how they convey the sensation of heat, of colour, or of sound. Such examination at best only shows that, while engaged in this conveyance, they are subject to certain forms of motion, which have nothing in common with any one of the sensations named.

Eighthly, it may be urged that our theory does not account for the categories, quantity, quality, relation, morality, and their subdivisions, in accordance with which the perceptions are determined. It may be replied that there is no need to account for these any more than for any other ideas, inasmuch as they are all contained in perception itself, either in the primitive perception or in subsequent ones. Kant's table of categories is a confused and clumsy affair, very much inferior to Aristotle's, in spite of the contempt which Kant poured upon the latter; and the fundamental Kantian assertion that these categories come from the subject is denied by the simplest utterances of consciousness. Indeed, the categories are merely the elements of perception itself—being, feeling, and the relations in which feelings stand to being and to each other through it. And this naturally leads to the question how ideas are formed.

In answering this question we must carefully distinguish between those ideas that belong to the original perception and those that are formed afterwards. The first are what are usually termed the categories, the latter, what are usually termed ideas. As we have seen, the primitive perception is an existent feeling;

whatever, therefore, can be analysed out of being, (indeterminate) feeling, or out of the two together is a category. Out of feeling, by itself, nothing, of course, can be analysed, inasmuch as by itself it is nothing for thought. We may, therefore, say that the categories are what can be analysed out of being or feeling as being. Out of being may be analysed¹ unity, totality, possibility, necessity, infinity, eternity: out of being, as felt, may be analysed, reality, cause and effect, substance and attribute, passion and action, subsistence, space, universality, reciprocity, limitability. Ideas, in the ordinary sense of the word, are as numerous as feelings or possible unities or combinations of feelings. Every feeling, as known, is a determination of being, and every such determination is as permanent as being itself, being nothing more or less than a possibility. The nature of being forbids certain combinations of feelings, such as a red green, a round square, &c. Such combinations *of words* correspond to what we call impossibilities, and involve what we call contradiction.

But it may be said: If all ideas are determinations of being, how do you account for negative ideas? This question is easily met by the affirmation that there are no negative ideas, and that there is no need to account for that which is not. What are sometimes called negative ideas are mere negations of ideas, that is, mere acts by which ideas are removed from before the mind. There is no idea corresponding to not-white, not-square, not-soul, not-body, not-extended, &c. It is true that many ideas which are very positive are frequently mistaken for mere negations of ideas, for the reason that they have correlates which are more prominent in consciousness than they. Infinite, for example, is a most positive and fundamental idea, without which there could be no thought; inasmuch, however, as it comes into dianoetic consciousness late, and on the occasion of an act denying limitations to being, it receives a negative name. It is, in truth, being itself, after all limitations or determinations are removed. Had it come, as being, into consciousness before anything else, that is, before limited things, these would have been termed non-beings—*μὴ ὄντα*, as, indeed, several of the ancients saw with tolerable clearness. Still they would not have been *mere* negations on that account. There is a long way between the negation of the fulness of being, that is, determination, and the negation even of determinate being, that is, nothing.

¹ That which can be analysed dianoetically out of a thing must from the first have been in it noetically. Of course, none of these categories come into clear consciousness until after much experience. We always use categories before we are conscious of them.

Again it may be said: If all ideas are objects of thought, how do we ever arrive at the idea of a subject? This, at first sight, seems a very puzzling question, but is, in truth, a very simple one; for every idea is an idea of subject. That is to say, while the idea is an object, that whereof it is the idea, the *ideatum*, the reality given in feeling, is always a subject. In every idea, therefore, there is contained subject and object. Unfortunately, since the days of Kant, there has grown up a use of the words *subject* and *object* which makes the former equivalent to *that which thinks*, the latter, to *that which is thought*, and this causes a real difficulty, inasmuch as there is no seeing how that, whose very essence it is not to be an object, can ever be an object. To say that we objectify that whose nature it is not to be an object is like saying that we make the square round. If, however, we use *subject* and *object* in their true and original signification as *ideatum* and *idea*, all difficulty vanishes. Great care must always be taken to avoid the modern confusion between subject and *ego*, which has done so much mischief in thought. Every *ego*, to be sure, is a subject; but every subject is not an *ego*. Every subject, moreover, is an object, at least anoiectically, else it would not be at all; but even every subject-object is not an *ego*. An *ego* is a subject, the principle and term of whose reality are both in itself. This statement does not at first sight seem very intelligible; a little explanation will make it more so. When I perceive this pen with which I am writing, I do not refer the principle of the feelings which for me form its reality to the same entity that feels them. In other words, I refer the feeling of reality to two distinct entities, conceived by means of two different acts. When, on the contrary, I perceive what I call myself, I refer both the principle and term of the feeling which constitutes the reality of the percept to the same entity. In other words, the *ego* is a reality whose principle and term are both referred to the same entity.

From this view of the nature of the *ego* there results an insight into the limitations of real knowledge. There is an old saying: "Every heart knoweth its own bitterness," which carries with it the implication that no heart knows the bitterness of another. And this is true in a very extensive sense. Feeling is utterly incommunicable, and hence all knowledge, in so far as it is dependent upon feeling, is likewise incommunicable; and this must eternally remain so, unless, as the Hegelian article of faith is, all realities are one reality, and there is but one subject in the universe. But as long as there is a multiplicity of realities, it is entirely evident that one can never feel the feeling which another has of itself. This at once explains why all external things seem impenetrable to us, and why, on the

contrary, when we think ourselves, there seems nothing to penetrate. This explains also why we find matter in everything. Matter is simply those feelings which realities have of themselves but which are impenetrable to other realities.

In this proposition it is taken for granted that every reality has a feeling of itself, or, in other words, that all nature is animate, a conclusion which natural science is gradually reaching by mere experiment. One thing is entirely clear, *viz.*, that if there were anything in nature besides sentience and being, we should never by any possible method become acquainted with it, since feeling and being constitute the sum of knowledge. Hume used to ask, when any idea was presented to him: To what impression of sense does it correspond? and if it corresponded to none, then he rejected it as a fiction. These fictions, substance, cause, &c., are all to be found in being, that element of knowledge which Hume entirely ignored, and to replace which Kant invented his table of categories. Feeling and being, therefore, are the constituents of knowledge; to these all knowledge must finally be reduced, and in terms of these it must be expressed. Any attempt to express these in terms of anything else is not only futile but foolish—futile, because everything else is but a combination of them, more or less complicated and indirectly known; foolish, because these are known immediately and without the aid of anything else. It follows that the universe must be explained in terms of sentience and being, not these in terms of matter and motion, as is usually done, and that materialism is a logical blunder of the very worst kind, equalled only by the blunder of idealism.

In conclusion, we may offer a definition of perception. Perception is the *intuition* of feeling as a relation of activity and passivity between two entities, each of which has that permanent act which we call being. Intuition, therefore, and not identity, is the essence of perception. Without intuition there would be no identity. The latter may be explained in terms of the former, not *vice versa*.

THOMAS DAVIDSON.

III.—CAUSATION AND ITS ORGANIC CONDITIONS.¹

IV.

I THINK we may consider ourselves well rewarded for the somewhat strenuous effort to discover the import of organisation amidst the intricate complex of powers which co-operate in the manifestation of the mental presence. We have climbed to a point from which we can take a bird's-eye view of Causation. Before us lies the wide, entrapping labyrinth of natural interaction; and it is interesting to notice the many ventless windings in which those philosophies found themselves entangled that sought to thread their way without the help of organic realisation.

The presence of mental states, and their actual mutations, is all we are immediately cognisant of. By dint of inbred impulse we feel instantly compelled to attach a transcendent meaning to these mental states and their changes. They peremptorily signify to us the characteristics of existences, which they are not themselves constituting, but merely more or less distinctly denoting. The most distinct of all mental states, the so-called percepts, seem so thoroughly and immediately indicative of something beyond themselves, of some other existent forcing itself then and there into consciousness, that we cannot help hypostatizing an external presence as cause of their appearance. Indeed they seem to have their true existence so completely outside our mind, that we unhesitatingly take them in the gross for foreign objects, forgetting altogether the part we ourselves are playing in their realisation. These seemingly foreign objects we perceive everywhere making up a whole world of apparently outside subsistence. And what we are constantly observing as changing and shifting in this objectified world, are just the things that we feel thus constrained mentally to project.

The fundamental dilemma of philosophy arises just here. Either I give myself up to the objectifying propensity, taking the perceived things naïvely for foreign existences, and racking my brain in order to explain the universe accordingly. Or I am aware that objects and their changes are, after all, pure mental phenomena, and thereupon set about resolutely to construct the solid world out of this somewhat flimsy material.

Viewing the situation from the exteriorising horn of the

¹ Continued from MIND XXVI.-VII.

dilemma, we actually find before us a universe of constantly changing things; all more or less rapidly becoming something different from what they were. Yet experience soon teaches that these changes are not wholly arbitrary, that they occur according to some kind of rule. Their course can to a certain extent be predicted; and moreover a broad resemblance obtains between all the products of these changes. It is as if something elemental were undergoing mutations, something that essentially endures within multifarious transformations. The task was therefore to find out this fundamental something, and to explain the variations in its diversified appearances. This was what the Ionian physicists attempted.

But if the transformed objects are real things, and the things of the past give rise to the things of the present, it must be asked: How can a certain thing that is now in existence be in any way the product of some other thing, which must itself have ceased to be, before the new thing could at all have started into being? A thing that is cannot possibly have been produced by a thing that is not. And as it is quite certain that of nothing there can come nothing, it is just as certain that of some *thing* there can come no other thing. We are evidently deluded by our senses. They palm upon us for reality a flux of ever changing and perishing appearances. The veritably real can never cease to be what it was, can never become something else. For ever it must remain what it actually is. It can therefore in no way be known through the senses. Only reason can apprehend it; and reason finds it to be an indivisible, immutable, all-comprising unity.

This, in the main, is the form under which the fundamental dilemma presented itself to philosophers more than two thousand years ago. On the one side the perceptual order, the flow of sensorial awakenings, was taken for the real universe; on the other side the organised potentiality of mind conceptually realised.

All philosophical attempts since may be regarded chiefly as endeavours to harmonise these two extreme views, or to present improved versions of them. The real task thenceforth was either to impart to the immutable substance, recognised by reason, some kind of specialising and moving activity; or to gain a background of substantial stability for the flowing and perishing manifold of sense.

The latter endeavour culminated in the Atomic systems; the former reached its climax in Neo-Platonism. Atomism derived the concrete objects or sensible things as well as the thinking subject, from the concretion or union of unchangeable elements. Platonism, in its most advanced forms, derived the manifold from particularisation within an all-comprising totality. Effi-

ciency was naturally located by Atomists in their only veritable realities; by Platonists in the one all-involving unity.

Still Democritus himself did not deny that reason was indispensable for the realisation of the atomic universe. For it is obvious that the only real objects, the atoms, are never perceived by the senses. They are only conceived by thought. Therefore the felt qualities of objects cannot possibly be contained in the atoms, which are altogether unfelt existences. And, consequently, sensible qualities must be affections of the feeling subject. This ultimate resting of ancient atomism on the realising faculties of the thinking and feeling individual, left it to the ingenuity of later materialists to explain how a subject entirely made up of insensible and unchangeable atoms can come nevertheless to embody faculties, which are not contained in the sole realities of nature.

To Plato it was very obvious that the combination of ever so many discrete atoms could not be made to account for the unitary world of reason. Yet he himself, unlike his followers of the Neo-Platonic era, shrank from the Eleatic position. He could not bring himself simply to declare the intelligible world the sole reality, and the objects of sense illusive and unreal. He felt that the true problem of philosophy was to explain the relation actually obtaining between the world in mind and the world outside of mind. He made it therefore his special aim to harmonise experience with reason. He found that reason conceives all objects presented by the senses, whilst the senses are incapable of perceiving the unchangeable objects of the intelligible world. He thought it therefore incumbent on us to refer the mutable things to the immutable order, the variable objects perceived by the senses to the invariable ideas conceived by reason. Thus he was brought to assume that the shifting phenomena of sense are only evanescent images of noumenal archetypes. But the images perceived by the senses do not arise spontaneously. They are images awakened in the soul through sensory affections incited by external things correspondingly fashioned. The ideal moulds are found impressed on all things and appearances. The ideas within the soul, through which it is enabled on the one hand to perceive the external things, and on the other hand to refer them to their eternal archetypes, are innate gifts, directly from the shaping power. The Deity has formed the primordial and shapeless matter of the universe into moulds, representing ectypally the eternal ideas; and has endowed the human soul with the faculty of recognising more and more adequately, through the suggestions of the imperfect and changing material objects, the perfect nature of the divine forms.

Thus, through supernaturally pre-established harmonies, Plato sought to achieve a unifying intercommunication between the external world and the world in mind; and then also between the phenomenal world experienced through sense and the noumenal world recognised by reason. He postulated, for the purpose, on the one side, an efficient moulding power, on the other side, a shapeless matter receptive of form. The original matter he endowed with lawless motor forces, and considered the moulding into form to consist not merely in the shaping into definite figures, but also in the orderly and harmonious directing of the inherent store of undirected forces. In all this we recognise already a multiplicity of causative agents, but to complete the list Plato distinguished further free causation from physically necessitated causation. Physical causes have to be put in operation by something outside themselves. Free causes act spontaneously by dint of intrinsic efficiency. The soul is the seat of free causation. Its force is spontaneous and original. This spontaneity of action is the cause of life, for we attribute life to that which contains in itself the cause of its activity.

In this profoundly intuitive, and yet marvellously circumspect view of nature, posterity found laid out for itself the many puzzles arising in the attempt to bring the external world into accord with the internal world, and to harmonise within the latter the sensible and the intelligible spheres. Theoretical philosophy, up to our time, has mainly consisted in a discussion of the different positions assumed in the Platonic system, showing up their discrepancies and working out their consistencies.

Plato's greatest pupil introduced at once into this harmonising scheme the chief contrast which arises, when through reason we endeavour—not to discern given forms within the turmoil of experience but—to gather up the manifold of the shifting world into steadfast universal notions embracing it all. Aristotle held firm to the belief that reason is the organ of true science; of that science, namely, which not only teaches that things are but also why they are. But—doctrinally at all events—he looked nevertheless upon experience as the only source of all actual knowledge. Platonic ideas were too evidently concepts generalised from particulars, and they were moreover useless in the explanation of nature, for they did not contain the cause of the motion or rest of natural objects. Reason, from the material given by experience, forms inductively general notions, and deduces therefrom less general notions. In the former manner are discovered the principles of science, in the latter scientific knowledge is established.

As the method which Aristotle followed in his search after

the causes of things became predominant in science until supplanted by English Empiricism, it is of great importance to gain a correct insight into it. True knowledge, according to this method, was established by reason detecting the why of the manifold of sense; detecting it, however, not by experimentally determining the concatenation of actual phenomena, but by apprehending their conceptual generalities. Groups of concepts were analysed, till most general marks were reached, such marks as enter into the composition of whole groups of concepts. These then were taken as the *αἴτια* of things, *αἴτιον* signifying thus always "ratio seu causa".¹ Consequently, a phenomenon was not considered understood till its "cause" could be demonstrated through a syllogism, showing that it necessarily followed from some general principle.

As the subject in which all predicates inhere Aristotle pretended to take formed matter. But, in truth, it is form alone which with him constitutes the fundamental reality everywhere. Matter is only potentially the thing which it actually becomes through form. The latter imparts to it reality, force and

¹ In considering this search after first and efficient principles within the ready-made generalities of reason, we are reminded of Kant, who—though fully aware, through Hume's influence, of the fundamental distinction between "ratio" and "causa," between "logischer Grund" and "Realgrund"—went nevertheless straight to work to derive from logical forms the ultimate principles which underlie the system of nature. On a similar logical basis Mr. Herbert Spencer has founded his principle of certitude—the inconceivableness of the negation. But he alone was in possession of a "sufficient reason" for a procedure so strange, especially when made use of by an avowed experimentalist. And, moreover, his rationalistic assumption furnishes him only with a criterion of certitude, not with efficient principles of nature. The final recourse to innate principles of reason in the grounding of knowledge may be thus justified:—The logical order is the expression of the organised generalities of experience. It consists of original synthetical processes of experience, that have become analytical through organic incorporation. It is the essence and orderliness of phenomenal influences permanently fixed in involution and integrated arrangement, by means of organic elaboration and heredity. One may therefore expect to find, amidst such a consolidated fund of naturally accumulated experience, a far more secure and certainly a far more ready foundation for axiomatic truths and first principles than in the fleeting manifold which discloses its relational laws to direct observation only after tedious research. And, no doubt, there is much soundness in this view. Only, we have in defence against consistent rationalism, to remember that the conceptual order has become established chiefly through such relations of the organic individual to outside existences as were developed by urgent subjective needs. The conceptual moulds or grooves are the systematised foundation of the knowledge of human beings evolved under certain very circumscribed conditions. This is especially the case with conceptual moulds or grooves socially established. We in our scientific era are striving through the direct investigation of phenomena to gain a wider and more disinterested knowledge of the universe at large.

directed efficiency. Thus the *composition* and *arrangement* of material bodies has to be looked upon as the veritable cause of efficacy and impressibility in nature. In this sense Aristotle calls the form of life a soul, *i.e.*, a formative principle animating and organising the material of the body. As far as this conception of life goes, we can hardly improve on it. For it is indeed the peculiar composition and arrangement of the bodily material that determines the efficacy and impressibility of life.

The formative soul would, however, not altogether account for the apperceptive activity of the living individual, for the combining and judging operations. Aristotle found himself therefore reluctantly compelled to admit a second soul, or thinking principle. And out of this hyperorganic assumption grew then the puzzle consistently to harmonise the active apperception of the sensorial manifold with its passive reception.

Aristotle recognised also the mere potential import of sensibility, requiring external influences to render it actual. He thought that the senses receive the forms of things without their matter, just as wax takes the impress of a seal-ring without transfer of any of the material of which the ring itself is made.

The brief historical survey I have here entered upon is indispensable to my purpose. I wish to bring distinctly to light the one positive problem on which all philosophical efforts have naturally been employed. In order to understand the development of philosophy it is hardly necessary to transport ourselves beyond the bounds of our organic individuality and its solidarity with the rest of our race. We need not lose our particular existence in anything so exalted as the self-evolution of autonomous thought. The matter becomes plain enough by viewing the historical series of philosophical efforts simply as a succession of abortive and slowly progressing endeavours to penetrate a very definite and clearly given problem of nature. An outside world is perceived and conceived by feeling and reasoning beings. How does this happen? How does the outside world manage to effect its sensorial picturings in the living individual; and how does the perpetual flux of such picturings become an intelligible system of nature to such beings? This is the gist of the discussion that makes theoretical philosophy.

Aristotle's chief divergence from Plato, his view of knowledge as particulars gathered up from experience and generalised into a conceptual order, instead of its being the reference of such particulars to a pre-established system of conceptual types, gave rise to the endless contest between realism and nominalism, between rationalism and empiricism.

Until quite recently, I cannot detect any movement in philosophy containing a germ of sufficient power to be capable of effecting by development the deliverance from the constant and almost fruitless see-sawing of the two schools.

When in the 15th and 16th centuries Scholasticism was at last overthrown, through the Revival of Letters, it became the task of scholars to rethink the Greek philosophies, now gathered from unadulterated sources. The return to nature was only very gradually effected. And, though philosophers liberated themselves eventually more and more completely from the direct influence of Greek tradition, they rediscovered in nature essentially the same problems that had already perplexed the great thinkers of antiquity. The harmonisation of the sensible and the intelligible world, of the universe of extension and the universe of thought, became now, as then, the leading subject of discussion. And, faithful to ancient precedent, reason was still regarded as the true foundation of scientific knowledge. The explanation of nature remained ratiocinative. It started from general premisses found ready-made in mind, and sought to deduce therefrom the particulars and their connexions in the phenomenal sphere. A deeply rooted conviction that thinking and being must be either supernaturally congruous or intrinsically identical guided all philosophical attempts of that period. It was believed that the reason of a thing was also its cause, that logical exposition and physical outcome were identical or at least analogous processes, logical order corresponding faithfully to phenomenal order. Spinoza's words give exact expression to the extreme position of this faith: "*Ordo et connexio idearum idem est ac ordo et connexio rerum*".

The empiricism of Aristotle had been altogether abortive. His inductive precepts were entirely neglected by himself and his followers, in favour of ratiocinative deduction. The principles of knowledge were invariably searched for in mind proper, where they were thought to reside as innate ideas, belonging to it before the admittance of any sensible experience. No serious attempt had yet been made to derive first principles directly from the phenomenal order. But now the time had come when the Aristotelian canon: "*Nihil est in intellectu quod non prius fuerit in sensu*," was to be tried in good earnest. The cultivation of natural science during the 17th century had rendered consciously available an eminently successful method of research. By carefully analysing actual facts of nature, elementary substances and forces were discovered, out of whose combination the analysed phenomena could be reproduced at will. Why should mental facts not be dealt with in a similar manner? Knowledge evidently enters our mind through the senses.

Therefore our ideas, which represent this knowledge, must be compounds of a limited number of sensorial elements. The task is to show how our most complex ideas are thus constituted. Formerly knowledge had been accounted for by means of syllogistic reasoning; now introspective observation was to be applied directly to the perceptual order.

First of all it is clear that, as everything we are aware of is found in consciousness, *i.e.*, mentally existent, known things of whatever description can be composed of nothing but sensorial elements. The outer world, as well as the inner world, are necessarily in their very essence only conscious aggregates and sequences of sense-derived elements of feeling.

The puzzle was now to make such an inwardly and outwardly unsupported world of discrete elements stick properly together. However, we still daily witness this astounding performance on the part of physical science, and are therefore inclined to admit the same possibility with regard to things of the mental order; all the more so because, rightly viewed, the physical things are nothing but mental things. Only the physicist has the advantage of being allowed to endow his sensorially unrealisable elements with whatever powers he may deem fit, whilst actual sensorial elements are much more directly under verifiable control. The most awkward hindrance to the construction of a coherent universe of feelings is the evident evanescence of each sensorial element. Physical atoms are considered everlasting and indestructible. Sensorial atoms arise from nothingness, and lapse at once back into it. For this obvious reason the sensorial composition of nature could not be in any degree plausibly effected without manifold postulations. A number of instantaneous and separate feelings, which could possess no endurance and coherence in themselves, were quite unfit to produce anything like the phenomenal world we are actually conscious of. A minimum of lasting and combining structure had at all events to be hypostatized. Memory was therefore acknowledged to preserve and to reproduce copies of the sensorial originals; and customary association was established as a power coercing the sensorial particulars into regulated coherence.

But the part this view of things has really played in the development of philosophical insight lies principally in its disclosing the difference between the relation of ideas to each other and the connexions of matter-of-fact occurrences. It rendered clear the fact that analytical or deductive reasoning only unfolds what had been previously put together; that therefore only synthetical propositions can be instructive. From this it necessarily follows that all our knowledge must be experientially derived. Its separate facts must be somehow connected by

bonds established through experience; and causation, or the necessary connexion of the separate facts, can be nothing but such an experiential link, rendered inseparable through undeviating reiteration of experienced sequence.

This momentous distinction between analytical and synthetical propositions, between logical foundation and foundation in reality, came, through Hume's influence, to be realised by a philosopher who had been trained in the rationalistic school. It was Kant who, in this way, also became convinced that no process of formal logic can possibly lead us to conclusions beyond that which is already contained in our premisses; and that therefore the necessary connexion of one occurrence with an entirely different occurrence must be of experiential origin. "I understand," he says, in one of the writings of his earlier period, "quite well how an inference is grounded in its reason in accordance with the principle of identity; for the inference is really identical with a part of its reason. But how something can flow from something different, not in conformity with the principle of identity, this is a problem which I should like to be made clear to me." How something may be a cause, or may possess power, can never be "understood by reason. These relations must be entirely taken from nature."

So deeply tinged with Empiricism was Kant at that period. In the year 1765, however, Raspe published the *Nouveaux Essais* of Leibniz, which reawakened rationalistic tendencies in him. The gist of the argument against Locke became the real motto of the Critical philosophy: "*Nihil est in intellectu quod non prius fuerit in sensu nisi ipse intellectus*". To Kant the last clause seemed an incontrovertible truth. It had to be adequately demonstrated. He reasoned thus: Synthetical propositions, when merely experiential, cannot possess universal validity. But the synthetical propositions of mathematics, for instance, do actually possess universal validity. And mathematical constructions are, moreover, put together *a priori* by an activity of the mind altogether independent of sense-experience. Therefore the mind is in possession of a synthetising power *a priori*, and it must be this power exerted on sense-material which constructs universally valid experience or real knowledge.

Here we are only interested in Kant's view of Causation. We wish to see how he explained the necessary connexion of sensible phenomena. By examining logical forms he derived, as he believed, a complete set of synthetical functions *a priori*. That of all these so-called categories, causation is the only legitimate one, has been speciously maintained by Schopenhauer. At all events, causation is among the best of them. Kant establishes it as a function *a priori*, by which the intellect is enabled to

cement together for good experientially connected appearances, so that these connexions shall henceforth be universally valid.

The utter untenability of such a view I have shown at length.¹ And not agreeing with those who derive mathematical experience from the usual sense-impressions, I have also shown that the special validity of synthetical propositions in mathematics is to be found in our individual possession of a system of non-mental causative agencies, by which we are enabled at will and designedly to compel and to construct without the aid of external stimulation the mathematical *percepts*, of which the propositions in question are assertions.

The organic foundation of the Uniformity of Nature, and therefore of the universal validity of synthetical propositions expressive of the same—the validity, namely, for all places and all times—rests on the adequacy of the mental effects as a system of signs; and this again on the strict reconstitution to full integrity of the experiencing individual. Within the identical potentiality of an identical being there must follow identical effects from identical causes. Therefore, whenever anywhere in the future the same mental effect takes place, it must be the same cause that produces it. And this same cause—to make complete its identification as a definite complex of powers—must naturally be accompanied by all the mind-arousing potentialities that were formerly connected with it. The weight and the colour now experienced convince me that it is gold I have before me. This really means that certain other mind-arousing potentialities, accompanying this specific weight and colour, will now also be found connected with the foreign cause of these my present sensations. If, however, I find that the thing before me fuses and dissolves, for instance, under different conditions from those on account of which I formerly gave it the name of gold, I then pronounce the differently reacting foreign existence to be something not the same as gold, to be a thing different from the one which aroused the gold-qualities. In fact, it is this ascertaining of the potential effects of causative agents which yields to us all our scientific identifications and distinctions among the multifarious foreign existences that make up the sense-compelling universe of externalities.

The universally valid proposition, upon which our knowledge is founded, amounts to this: Whenever identical mental effects actually appear, or are expected to appear, their causes must be

¹ See *Die Kant'sche Erkenntnisslehre widerlegt vom Standpunkt der Empirie* (München, 1871), especially pp. 141—176; "Die nothwendige Verknüpfung des sinnlich Mannichfaltigen ist ein physiologischer und kein logischer Akt."

identical; and whenever the mental effects differ, their causes must also differ.

The great source of fallacy in this mental recognition of causes lies in the propensity of intrinsic stimulation to give rise, of itself, to appearances similar or identical with those of extrinsic stimulation. We are, however, secured to a wonderful extent against this possible source of fallacy, by our entire frame having become organised into a system of relational apparatuses, whose doubleness and further mutual corroborations are concerted in a manner to render all but quite certain the validity of objective recognition.

And just as universal validity for a certain subject depends on the enduring identity of such a subject, so does validity for many subjects or for all subjects of one and the same race, depend on abilities possessed alike by all individuals. It does not depend on the inherence of all separate minds in one and the same super-individual mind or consciousness.

But we have now to return to our historical survey. Philosophy after twenty-four centuries of most diversified trials had failed to discover the ways of knowledge. In no manner could it be adequately extracted from reason, and just as little could it be fully derived from the senses. Nor had any compromise at all succeeded. Nativism and Empiricism remained fundamentally irreconcilable.

Suddenly, however, light began to pierce the hitherto immovable darkness. It was Mr. Herbert Spencer who caught one of those rare revealing glimpses that initiate a new epoch in the history of thought. He saw that the Evolution-hypothesis "furnishes a solution of the controversy between the disciples of Locke and Kant". To us younger thinkers, into whose serious meditations Darwinism entered from the beginning as a potent solvent of many an ancient mystery, this reconciliation of Transcendentalism and Experientialism may have consistently presented itself as an evident corollary from the laws of heredity. But what an achievement for a solitary thinker, aided by no other light than the penetration of his own genius, before Darwinism was current, to discover this deeply hidden secret of nature, which with one stroke disclosed the true relation of innate and acquired faculties, an enigma over which so many generations of philosophers had pondered in vain!

To an attentive student of nature and its philosophical conception *Organisation* appeared now as the one central fact everywhere offering itself as the veritable substantial basis, as the cause *in potentia* and *in actu* of natural occurrences. Organisation could be readily discerned as the obvious implication of Hume's results, and therewithal as the deliverance from their

nihilistic bearings. Organisation again was clearly the very matrix of the system of synthetising powers so strenuously and vainly sought for by Kant in mind proper. And Organisation was certainly the evolutionally accumulated embodiment of all potentialities of life.

The understanding of Organisation became therefore the *conditio sine qua non* of philosophical progress. Unfortunately the accepted theory of organic individuality barred the way to any intelligible and consistent harmonisation of life and mind. Mr. Herbert Spencer, who had discovered in the organic cumulation of generic experience the real secret of the *a priori* propensities of the living individual, was—for want of a true science of vitality—powerless to explain the facts of mind in correspondence with the facts of life, nay even to explain the facts of the simplest organisation from his own evolutionary standpoint. All his constructive ingenuity and philosophical subtlety and depth could not overcome the downright impossibility of conceivably putting together, through aggregation or association of elementary forms and powers, the bodily and mental structure of an organic individual.

Synthesis of ultimate units of structure and feeling, synthetical unity of organisation and apperception, personal identity of body and mind,—all these cardinal facts of nature remained as unintelligible to his synthetic philosophy, as they had proved to the analytic philosophies of his experiential and transcendental predecessors.

The task was to suppress as far as possible all preconceptions, and to enter seriously on a renewed investigation of life and organisation. If mind exists indeed in strict correlation with life, then an insight into organic interdependence and vital processes must also yield an insight into the secrets of mentality. In former contributions to this Journal and elsewhere I have given an account of the principal results of a long series of laborious researches undertaken in this spirit. I have chiefly shown how through relational influences and adaptation to the same, more and more specialised organic differentiations are gradually wrought into the unitary substance of the indivisible organic individual; how the synthesis of the elementary feelings aroused at the sensory surface can only be realised through the specific energies of central structures; and how personal identity is actually maintained by means of an adequate reconstitutive integration of the organism as a whole.

Whoever will give careful consideration to these results will find that they are the expression of a faithful adherence to the teachings of nature, that they consistently flow from actual observations, and are by no means due to an inordinate striving

after unity of conception of such facts as stand unharmonised in the order of nature, as represented by us.

Synthesis (MIND, XVII.), Unity (Nos. XIX., XX.), Identity (No. XXIII.), these chief stumbling-blocks of all philosophies, have—through a more thorough investigation of vitality—received their scientific explanation. Flimsy fumes of fancy have been thus dispelled, and a view opened into true depths of mystery beyond. In comparing the actual demonstration of these great subjects given by the philosophy of Organisation, with the verbal accounts rendered of them by the different idealistic and realistic systems, I believe unbiassed thinkers will concede that on the one side we have substantial existents and veritable occurrences, on the other side fictitious entities and nominal processes.

The difference between the method adopted by Locke's consistent followers and the method here employed is to be found in the interpretation of mental states, not as originating each other and linking themselves together by force of their own nature, but as adequately caused in their presence, composition and changes by non-mental powers. Consequently the analysis of "complex ideas" or rather of the mental presence is not performed by its decomposition into constituent sensorial elements, meaning nothing beyond themselves; but by referring the definite complex of presented and represented feelings to objective causes, the existence of which they have been found experimentally to signify. Thus experience does not consist in the order of the mental elements as such, but in their order as denoting specific concatenations of the causative agents. Experience is the realisation of definite complexes of correspondences between mental states and their non-mental causes; never forgetting, in the process of complete scientific explanation, that the definite complex of such correspondences, which we call our own organism, is at all times playing the incomparably greatest part in this causative performance.

In physical science the mental states of the observer are employed in order to establish the characteristics of the thing under investigation. In mental science the sense-arousing powers of outside things are made use of for the purpose of ascertaining the characteristics of the mental states themselves. In examining a brain for instance, the perceptual details awakened by the foreign presence are applied to the interpretation of that foreign presence. But if, on the other hand, it is desired to gain a knowledge of the influences of the foreign presence, called a brain, in the production of mental states, then experiments with that foreign presence serve to elucidate the constitution of the mental states influenced by it. A string

emits a certain sound. We wish to ascertain the conditions of the foreign powers giving rise to the phenomenon. We use our sensibilities for the purpose, and find out that just so many vibrations of the string imparted to the air will produce exactly this sound. If, on the contrary, we are desirous to know how the sound as a sensation is produced, we experiment with the foreign powers till we are certain that just so many aerial beats are imparted to our tympanum; and then we experiment further with the organ of hearing till we discover the exact part which each definite portion of it is playing in the process. Thereupon we continue our search till we come to the very structure in the brain, a certain specific action of which is invariably accompanied by the sound in question.

In this case we have also utilised the observer's sensibilities, but it was in order to make out the exact complex of non-mental powers which effect a certain mental state. It was not our aim to investigate the constitution of the non-mental powers themselves. Of course, as all non-mental powers are only known by their mental effects and are adequately represented by the same, the knowledge of all the conditions giving rise to a mental state must also constitute the full knowledge of the non-mental powers influencing it. But in the case of practical and physical knowledge we oppose our entire organic individuality as reacting medium to the world beyond our skin. The final perceptual effects of our stimulated surface-sensibility we take to signify directly the nature of the stimulating powers, whilst in truth the influences of our entire organisation intervene, giving to the mental effects their whole wealth of contents, and receiving only specifically awakening touches from the outside.

This evident consideration shows how very inferential a discipline physical science actually is; how utterly dependent on the realising powers of the organised individual. Indeed the truth and therewith the availableness of our knowledge of the external world rests completely on pre-established harmony, evolutionally organised.

The difference between Kant's procedure and that of the philosophy of Organisation is simply this. The *a priori* structure which must be somehow potentially subsisting, and which evidently imparts systematic significance to our incoherently received sense-affections, was placed by the Critical philosophy in the faculties and activities of mind proper. The philosophy of Organisation, on the contrary, proves that it rests in the faculties and activities of our vital organisation; recognising at the same time that this vital organisation is only symbolically known by its mind-arousing influences on us as observers.

We have now, in conclusion, briefly to recapitulate the chief complications of Causation shadowed forth in these pages.

Taking the mental presence as the central and final outcome of the interaction of certain non-mental powers, it is obvious that these non-mental causative agents present themselves to an observer as an environment of manifold and complex things affecting in various ways the surface of a unitary organism.

The seemingly plainest and most obtrusive problem of interaction is the so-called physical problem, the explanation of the constitution and effectiveness of the things of the environment. But as the things and their changes are realised only by us as observing agents, they can be known solely by means of their influences upon our sensorial capacities. Consequently the ultimate foundation of physical science will have to be established through an adequate theory of knowledge.

Hume and his consistent followers aimed at ignoring completely the realm of affecting externalities. They began their philosophical operations with the sensorial appearances as such. These they pretended to take for the ultimate reals, signifying nothing beyond themselves; and then sought to constitute laws of nature by introspectively ascertaining the direct concatenation of such sensorial phenomena.

Kant recognised emphatically the influence of a world of externalities on our sensorial receptivity. The immediate perceptual effect of this interaction between ourselves and the outer world he called an "appearance". He abstained, however, from investigating the mode of production of these appearances, and left thus completely in the dark the way by which external influences can come at all to affect mind. This most fundamental kind of natural causation, the interaction between the outer world and the sensorial capacities of the living organism, he excluded altogether from his account of causation in general. He declared the appearances to be simply "given," and then endeavoured to demonstrate the transformations wrought by intellectual activities on the passive raw-material of sensorial experience.

Kant's idealistic followers, finding that the so-called appearances or phenomena are altogether mentally fashioned, denied the right of assuming sense-affecting powers behind the phenomena. They either operated directly with the phenomena themselves, just as Hume's followers, only submitting them to the elaborating activity of autonomous thought, instead of allowing them to coalesce experientially, by dint of inherent capacities of their own. Or they looked upon the constructive productivity of thought as the very source of the whole phenomenal order.

With us here the sensorial appearances or phenomena are

perceptual realisations of the actual and potential influences of external powers on our organisation. It was shown that phenomena emphatically designate foreign noumenal existences; existences not only outside our mind, but outside the specific noumenal existence which we call our own organism. Our own organism, as well as the other externalities, are capable of becoming phenomena, definitely realised within the sensibility of an observer. By dint of specific perceptual manifestations, persistently compelled in the observer, he feels constrained to assume a system of adequate causes, exactly corresponding to these perceptual manifestations. To us all the noumenal existence of the organism and its environments, though altogether mentally, *i.e.*, phenomenally, revealed in the manner stated, forms, nevertheless, a most steadfast natural belief.

Knowing the foreign noumenal causes merely through their perceptual effects, and these effects being only revealed through the mediumship of our own individual organisation, it follows that we can judge of changes wrought by one foreign existence upon another solely through influences from both foreign existences affecting our sensorial surface, and becoming perceptually manifest by means of the specific energies of our individual organisation. It now comes to pass that within this our organisation all activities are systematically connected and unified. The interaction of two foreign existences can be therefore perceptually represented only as an inherent phenomenal change within a single mental presence. In consequence, this representative realisation within the prearranged potentiality of a coherent and unifying medium leaves entirely unknown how it happens that foreign powers, appearing to us as separate things, can come to exert at all any influence upon each other. As all changes become manifest in one and the same unitary and realising medium, the interaction of separate existents remains the most incomprehensible *event* in nature, existence itself being its most incomprehensible *fact*.

Assuming, however, from distinct perceptual indications the existence, separateness and interaction of externalities, we are enabled to construct a science of the same, not indeed by noticing the laws of the association of the phenomena as mentally reproduced, but by recognising that we are offering to the outside powers a medium of subtle sensitiveness, wherein—with practically invariable success—they can impress in specific effects their sundry specific peculiarities. Such a faithfully recording and realising medium is afforded in the enduring and identical substance which composes our living individuality.

If the influence of an outside power could set going within the realising individual a train of mental changes, of which

each preceding change were the efficient cause of each succeeding change, then we should consistently arrive at Fichte's first impulse, upon which all the rest would be mere intrinsic production. Physical science there could be none. The possibility of such a science of externalities rests, on the part of the observer, entirely on the identical reconstitution of his individual sensibilities. He offers an ever identically renovated impressibility to the outside powers, and is thus enabled to study the specific differences and agreements of their respective influences. Out of such carefully discriminated and generalised sensorial material he constructs his physical science. But if, on the other hand it were to happen, that the observer's own sensibility remained identical, whilst no kind of order or stability were maintained by the influencing powers, then again physical science would be an utter impossibility. Indeed the fact of the perceptual, *i.e.*, ideal, preformation of the definite potentialities of external influences, together with the disclosures of organic evolution, renders it certain that, through connatural development and adaptation there has been established an extensive and accurately prearranged correspondence between the potentialities of the living organism and the potentialities of the outside world. The entire organism is so clearly the expression of such an adaptive development, that we need not wonder to find the correspondence also faithfully expressed within the mental sphere.

Veritable scientific causation is therefore something very different from the efficient production of changes among external things; different also from invariable sequence; or from subsumption under an *a priori* category; or from the evolutionary procession of any given totality of existence; or from spontaneous mental efficiency of whatever kind.

Viewed even as merely perceptual, causation is already founded on substantiality of the realising individual, as well as on substantiality of the influencing powers. And it is moreover founded on an evolutionally pre-established harmony between the realising individual and the foreign existences affecting the same.

In turning our attention from the physical order as such to the perceptual representations themselves, we endeavour scientifically to analyse the latter through the assistance of appropriate experiments. We seek to ascertain the direct sensorial effects of specific stimulations, and therefrom to infer what in the resulting percept becomes added either through irradiation of direct stimulation or through spontaneous intrinsic activities. We have to confess that, in this undefined borderland of externally compelled feelings and intrinsically awakened ideas,

experimentation gets to be extremely difficult. Notwithstanding, the various stages in the synthesis of separate sensorial stimulations are beginning to be recognised, and the ideal substitution of the perceptual complement of direct sensorial effects is opening a view into the thorough solidarity of the feeling, perceiving and conceiving subject. The final aim of this science can be no other than organically to explain the entire mental presence and its changes. By consistently pursuing the experimental method we may hope more and more definitely to succeed in this difficult undertaking.

Introspectively, we discern principally three different orders of mental phenomena, everywhere interpenetrating each other; the physical order, extrinsically compelled; the ideal order, associatively arising; the logical order, intrinsically preordained. All these orders are potentially preorganised in the realising subject. They have their foundation and matrix in that, which an observer perceives as certain definite organic structures and activities. Extra-organic stimulation incites chiefly the physical order; intra-organic stimulation the associative order; whilst the logical order is the expression of the assimilation of all kinds of potentialities into the systematic totality of the realising individual. Any physical or ideal subject which we logically postulate, is detached from our individual totality, is by various determining means specifically actualised within the potential all-comprehension of the one ultimate and identical subject, to which all logical postulations and assertions are in verity referable. The passage from the physical order into the logical order can be introspectively traced in the transformation of synthetical into analytical propositions. Organically, it must be accomplished by the assimilation of physically compelled changes into the reconstitutive personal current, by which they are then spontaneously and identically reproduced.

Introspectively, the gulf between conscious states and their non-mental causes is insuperable. Everyone feels that to speak of unconscious mental states is not only to be uttering a paradox, but to be giving expression to a *contradictio in adjecto* almost as preposterous as if we were to assert non-existent existence. Yet we recognise, nevertheless, that something influences at times unconsciously our mental states, which at other times is distinctly discerned as entering into the actual mental presence. This evident occurrence seems to teach us that, after all, there can be no such radical distinction between mental actuality, which alone is conscious, and certain activities of the potential matrix, which under certain conditions remain unconscious. As the potential matrix has power to awaken its perception in an observer, it is from this objective and distant

standpoint that its unconscious activities, forming unfelt links within the changes of the mental presence, have to be studied and conjectured.

Nerve-tissue is the consummation and cumulative outcome of the cycle of activities which constitutes vitality. It forms an organically fixed and maintained system of relations to outside influences. The functional potentialities of this organic embodiment of possible interactions with external powers consist in the capacity of adequately responding or reacting, by dint of inherent specific energies, to the most varied and specific influences of those outside influences. The functional responses or specific reactions, when actually and adequately occurring, form the inward experience of the organic individual, or its mental presence. The mental presence is mental potentiality in functional action. The mental *potentiality* has power to compel in an observer the definite percept, which we call nerve-tissue. The mental *actuality*, if rendered perceptible, would appear as functional movement within this, the observer's, percept, *i.e.*, within what we call nerve-tissue.

This, I think, is the general and legitimate interpretation of our mental presence, when we survey the entire range of compelling powers of which it is the effect or outcome.

EDMUND MONTGOMERY.

IV.—INCOHERENCE OF EMPIRICAL PHILOSOPHY.

I USE the term Empirical Philosophy to denote a theory which is not primarily a theory of Being, but a theory of knowledge; nor, again, a merely psychological theory, considering the psychological fact called knowledge merely as a phenomenon of particular minds; but a doctrine that is concerned with knowledge in respect of its validity, laying down the general criteria by which true or real knowledge may be distinguished from what is merely apparent: what—using a convenient, though hardly current, term—I will distinguish as an *epistemological* doctrine. Admitting that any complete system of philosophy must include some reasoned answer—positive, negative, sceptical or critical—to ontological questions; I still think that the term Philosophy may be fairly applied to what is primarily a doctrine of the criteria of knowledge, without reference to any ontological conclusions which such a doctrine may be held to establish. And if we try to give a precise and distinctive meaning to the term “empirical” or “experiential,” as applied to existing schools of philosophy, without materially restricting its ordinary use, we must, I think, make it signify merely the *epistemological* doctrine that all cognitions that can be philosophically accepted as valid, whether universal or particular, must be based upon experience. In this sense we may say that Empiricism of some kind is the philosophy which students of Natural Science, at the present day, generally have, or tend to have; and also other persons who cannot be called students of Natural Science, but whose minds are impressed and dominated by the triumphant march of modern physical investigation. Such persons have a general, unanalysed conviction, independent of close reasoning of any kind, that the recent conquests of the human intellect over the world of concrete fact are mainly due to that precise, patient and elaborate questioning of experience which has certainly been an indispensable condition of their attainment; that the extension and steady growth of these conquests constitute at the present time the most important fact for one who wishes to philosophise; and that any philosophy that is not thoroughly competent to deal with this fact has thereby a presumption against it that it is behind its age. And in order that my point of view in the remarks that follow may be understood, I should like to say at the outset that I fully admit the force of this general presumption in favour of Empiricism. Just as at the outset of modern philosophy in the age of Descartes (as well as earlier still, in the age of Plato), Mathematics naturally presented itself as the type

of solid and definite knowledge, so, it seems to me, the type is now furnished by the sciences that rest on experience; to which mathematics—in the natural *primâ facie* view—stands in the subordinate relation of an instrument.

I am therefore as much disposed as any one can be to go to experience for a test of truth; but I find myself unable—with all the aid of the eminent thinkers who have recently maintained some form or other of Empiricism—to work out a coherent theory of the criteria of knowledge on an Empirical basis. The difficulties in the way of this attempt appear to me to be of a very fundamental character; and one important group of them—those which relate rather to the premisses of empirical philosophy than to the rational procedure by which its conclusion is reached—do not seem to me to have received sufficient notice from the leading empirical writers. It is, therefore, to this part of the argument that I chiefly wish to direct attention in the present paper.

Before, however, I proceed to state these difficulties, it will be well to define somewhat more closely the fundamental doctrine of Empiricism. I understand this to be that all trustworthy cognitions¹ are either immediate cognitions of particular, approximately contemporaneous, facts, or capable of being rationally inferred from these;—let us say, for brevity, either ‘immediately empirical’ or ‘mediately empirical’. It is only in this sense that the statement that all valid judgments are founded on experience appears to me to have a definite epistemological import, *primâ facie* tenable.

To make this clearer, I will consider briefly certain other senses in which knowledge is currently said to be “founded on” or “derived from” experience. In the first place, by predicating this of any piece of what presents itself as knowledge, it may be merely meant that such apparent knowledge is *caused* by certain antecedent empirical cognitions, from which, however, it is *not* rationally inferrible; or rather, strictly speaking, that it has *among* its causes such antecedent cognitions—for no one would give a mere statement of these antecedents as a complete account of its causation. The vulgar induction of a universal rule from a few particular cases is an instance of this kind of derivation of a belief from experience. It is evident that the ascertainment of the empirical antecedents of such a universal judgment, however interesting psychologically, does not in itself help us to decide the question of its truth or falsehood: for (1) *ex hypothesi*

¹ I ought perhaps to state that in this paper I use the term cognition to include intellectual states or acts which are, or involve, false judgments, as well as those which are, or involve, true judgments—or, to express it otherwise, *apparent* as well as *real* cognitions.

it does not supply adequate grounds for regarding the cognition so caused as philosophically established, and (2) it is no less manifest that it does not disprove the belief so arrived at—since obviously a generalisation from a few cases may be true, though it cannot be proved by reference to these cases alone. The epistemological question we have to ask about it is not from what sources it was originally derived, but upon what grounds it is now deliberately held.

The result is similar if the ascertained psychical antecedents from which any judgment is said to be "derived" are not cognitions at all but merely feelings—sensations or emotions. The ascertainment of the invariable antecedence of any such psychical facts obviously cannot validate any cognition thus ascertained to be their consequent (unless it be the cognition of these facts themselves). And it seems to me equally evident that it cannot invalidate it;—it is only by a palpable confusion between "antecedents" and "elements," or by a quite unwarranted transfer of chemical inferences to psychical facts, that certain Associational psychologists claim to have "analysed into elementary feelings" apparent cognitions of what is not feeling, when they have merely shown these feelings to be invariable antecedents or concomitants of the cognitions in question. Any cognition, as introspectively contemplated, is essentially different from any mere aggregation of feelings: and I am aware of no tenable grounds for concluding that such cognition "really consists" of elements which careful introspection does not enable us to discern in it.

Still more is the ascertainment of the (so-called) "derivation from experience" of any piece of apparent knowledge *epistemologically* irrelevant, if the antecedents loosely referred to as 'experience' are neither cognitions nor feelings, but relations of the *bodies* of the cognising individuals (or their ancestors) to other material things: as for instance if by saying that a child can be shown to have had "experience of space," before it can judge that a straight line is the shortest line between its extremities, it is merely meant that its limbs must have been moved about, or other matter moved across portions of its body, &c. For no empirical science professes to explain the relation between the validity or invalidity of judgments and the antecedent motions of the organism of the judging individual: so that the mere knowledge of the antecedent motions in any such case, however complete, would not give us any presumption as to the truth or falsehood of the consequent cognition. All that the most confidently dogmatic of modern biologists claim is that the cognitions of any organism capable of cognition—or rather the organic movements accompanying them—will have a certain tendency to produce motions preservative of the organism under the

external conditions that normally follow those that caused the cognitions in question: and it is obvious that a cognition may have this tendency without being true.

Finally, it should be observed that the phrase "empirical theory of the origin of knowledge" is often used to denote a doctrine which, like Locke's, is merely empirical (in a sense) as regards the *ideas* by comparing which knowledge is held to be constructed; but is essentially "intuitional" or "*a priori*" as regards the actual synthesis of ideas that constitutes knowledge. However strongly Locke holds that ideas "come from experience" —*i.e.*, from presentation to the mind of the realities which the ideas represent; he none the less holds that universal and immutable relations among these ideas admit of being intuitively known by abstract reflection, and that it is the apprehension of such relations that constitutes knowledge, in the highest sense of the term. And, clearly, it is the latter doctrine and not the former that must determine his *epistemological* position.

I may be allowed, however, to observe that even as regards the materials of knowledge, it does not appear to me that the ascertainment of the first origin of ideas can have any decisive effect; on account of the great changes which ideas gradually undergo, in the course of their use as instruments of scientific reasoning. We may find instances of such change in the nomenclature and terminology of almost any science. To begin with mathematics: I do not deny that my original ideas of "straight line," "circle," "square" were derived from experience; in the sense that they were caused by my seeing and moving among material things that appeared straight, round, and square. But the proposition seems to me one of merely antiquarian interest; since all competent persons are agreed that, in the degree of refinement in which these notions are now used in mathematical reasonings, it is impossible to produce any objects of experience which perfectly exemplify them. In physical sciences, however, this change of meaning is often more marked. Take the notion "Force". This seems indubitably derived from experience of muscular exercise, and hence its original significance must have included, at least, some vague representation of the movements of muscles, or of the limbs moved by muscles, and also some of the specific feeling of muscular effort. But by "Force," as used in physical reasonings, we mean merely a cause which we conceive obscurely through its relation to its effect, motion; which motion, again, may be merely possible, not actual. Hence, whatever be the conditions within which our knowledge of forces is confined, it does not appear that the origin or original content of the notion can have much to do with these conditions. Simi-

larly in chemistry, the ideas of "acid" and "salt" must have originally represented merely the flavours experienced by tasting the things so called: but now we regard such flavours as mere accidents of the relation of the things we call "acids" and "salts" to our palate, and not even universally inseparable accidents. In psychology, again, the difference between the original character of the ideas by means of which we think about mental processes, and the character they ultimately acquire when our reasoning has become scientifically precise, is still more striking. For almost all our terms originally represented physical, not psychical, facts; and the physical significance often clings to the idea in such a way as to confuse our psychological reasonings, unless we take pains to get rid of it; while, at the same time, thinkers of all schools would agree that we *have* to get rid of it. Thus, "impression" meant the physical fact of stamping or pressing, "apprehension" meant "grasping with the hand," "intention" and "emotion" suggested physical "straining" and "stirring up". But we all put these physical meanings out of our view, when we are trying to think clearly and precisely about psychical phenomena; however interesting it may be to note them when we are studying the history of thought. Hence, I conclude that the settlement of the time-honoured question of the "origin of our ideas"—so far as it admits of being settled by received scientific methods—will not really determine anything of fundamental importance, either as regards the *materials* of our actual knowledge, or as regards the mode of constructing knowledge out of them.

After this preliminary clearing of the ground, I pass to consider how the cardinal doctrine of Empiricism as above defined—that all trustworthy cognitions are either mediately or immediately empirical—is philosophically established. We may begin by laying down that this general criterion of truth must itself be based on experience—*i.e.*, upon particular cognitions of the truth of this, that and the other empirical cognition: since it would be palpably inconsistent for Empirical Philosophy to start with the general assumption, *not* based on experience, that no general propositions are trustworthy, *except* those based on experience. If, again, we ask how these particular cognitions are to be obtained, it is obvious that they must either be proved or assumed; and that if we say that they are proved, this proof can only be given by assuming similar particulars, since it would be inconsistent with the criterion to be established if we allowed any part of its proof to rest on universal propositions as an ultimate basis; so that ultimately we must be led back to particular cognitions assumed without proof.

What, then, are these particular knowledges of which Em-

pirical Philosophy must assume the validity at the outset of its procedure? Popular Empiricism seems to me to give at different times two different answers to this question; and by shifting about from the one to the other, and sometimes mixing the two, its argument, I think, gains in plausibility what it loses in clearness.

(1) Sometimes the answer is—whether explicitly or, as is more often the case, implicitly—that we start with what is generally admitted to be solid knowledge; that is, not the disputed and controverted matter which is found to some extent in all departments of study, and of which Metaphysics and Theology entirely consist; but the undoubted facts of history, natural and civil, and the generalisations of positive science of which, as they are commonly supposed to be based upon experience, the examination leads us *primâ facie* to the empirical criterion. Let us grant for the present that being founded on experience alone is a characteristic which we find, on examination, to belong to the majority of beliefs that are commonly admitted as constituting solid knowledge. It must still be clear that, if we make a complete survey of the classes of beliefs that are supported by the common sense of mankind, we come upon important aggregates of beliefs which, in the absolute universality with which they are commonly accepted, are certainly not based upon experience. I do not now dispute the empirical arguments used to prove that these beliefs, when duly restricted, have really a solid empirical basis—as, for instance, if we believe not (as common sense holds) that a straight line is always the shortest line between its extremities, but merely that it is so in the space with which we are familiar. But such modifications of current beliefs implicitly accuse common sense of error too extensive to leave its guarantee philosophically trustworthy: so that it becomes impossible in strict philosophical reasoning for an Empiricist to start with assuming the validity of what is commonly taken as knowledge. We may allow him to accept for practical purposes whatever is believed by “every sensible man” or “every one with the least knowledge of physical science;” but he must not introduce in philosophising propositions guaranteed by this kind of warrant alone.

This seems so plain, that I need not enter into further difficulties involved in the acceptance of the criterion of General Consent,—as that the consent of the majority to science and history is ignorantly given, or not really given at all; that the consent of one age and country differs from that of another, and that in past ages the criterion would have certified many doctrines that we now reject as erroneous and superstitious, &c.—especially since these considerations have been forcibly urged by more than one empirical philosopher. In fact, empirical

philosophers do not, for the most part, appeal expressly to the criterion of General Consent, so far as their philosophical procedure is concerned. If formally asked what the cognitions are which they assume to be true in the reasoning by which they establish the empirical criterion, they would usually answer (2) that they assume, first, what is immediately known, or what we are immediately conscious of, and, secondly, whatever may be cogently inferred from this.

The second part of this answer has been frequently attacked; and it certainly appears to me that no perfectly cogent inference is possible on strictly empirical principles; because no cogent inference is possible without assuming some general truth, the validity of which cannot itself be guaranteed by any canon of cogent inference. But the assumption of the validity of immediate cognitions seems to me equally open to attack; and it is to this that I now wish specially to direct attention. I must begin by removing an ambiguity in the term "immediate". When an Empiricist speaks of a cognition as "immediate" he must not be understood to mean that it has not among its causes some antecedent psychical or physical phenomena—some feelings, or some movements of the matter of the organism of the cognising individual; for no empiricists maintain that *any* cognitions or any other mental phenomena are *uncaused*; and if they are caused at all, they must stand in the relation of effect either to psychical or physical phenomena, or to both combined. The "mediation" that is excluded by terming any cognition "immediate" must therefore be logical mediation or inference.

If then it be asked, why should we make the general assumption that error is absent from non-inferred cognitions and from these alone, the answer would seem to be, first, that immediate knowledge carries with it its own warrant; that when we immediately know we also, by a secondary inseparable act of the mind,—generally latent but becoming explicit if any doubt is raised,—know that we know certainly: and, secondly, that we have no experience of error in non-inferred cognitions; error being always found to come in through inference.

But it is practically of no avail to say that immediate cognition is infallible, unless we have a no less infallible criterion for ascertaining what cognitions are immediate: and the difficulties of ascertaining this are profound and complicated. Are we to accept each man's own view of what he immediately knows? This certainly seems in accordance with empirical principles, as all experience must be primarily the experience of individual minds. But if we take, unsifted and uncriticised, what any human being is satisfied that he or she immediately knows, we open the door to all sorts of mal-observation in material mat-

ters, and to all sorts of superstition in spiritual matters,—as superstitious beliefs commonly rest, in a great measure, upon what certain persons believe themselves to have seen, heard, or otherwise personally experienced. And in fact, no empiricist adopts this alternative; there is no point upon which empirical philosophers are more agreed than on the incapacity of ordinary persons to distinguish their immediate from their mediate knowledge. Shall we, then, say that we take each man's experience so far as it commends itself to other men? But if we mean "other men generally," this is only our old criterion of General Consent, in a negative instead of a positive aspect, and the acceptance of it would therefore bring us round again to the difficulties already discussed; with this further difficulty, that it is hard to see why, on empirical principles, any one man's experience stands in need of being confirmed by that of others. I do not see what right an empiricist has to assume that one man's immediate cognitions *ought* to coincide with the immediate cognitions of others; still less, that they ought to coincide with their inferences. And if empiricists do not trust common men's judgment as to their own immediate knowledge, they can hardly put them forward as trustworthy judges of the immediate knowledge of others.

It may, however, be said that to distinguish accurately immediate from mediate cognitions requires a skill beyond that of ordinary men, only attainable by training and practice: that, in short, it requires the intervention of psychological experts. This seems to be the doctrine of James and John Mill, and, in the main, of the school of which they, with Mr. Bain, are the founders; but, in my opinion, it is open to several fatal objections. In the first place I do not see how even an expert can claim to know another man's immediate knowledge without assuming that all human minds are similarly constituted, in respect of immediate cognition; and I do not see how this assumption is legitimate on empirical principles. And this difficulty is increased when we consider that the psychological expert, if he is an Empiricist, has to throw aside as untrustworthy the affirmations, as to their own immediate knowledge, of thoughtful persons who have given much attention to the subject—I mean the Intuitionist Metaphysicians, who say that they immediately know universal truths. If we admit these to be experts, I do not see how we can hope to establish the cardinal doctrine of Empiricism. Yet how can we exclude them, except by assuming the empirical philosophers to be the only real experts? and this seems hardly a legitimate assumption in an argument that aims at proving the empirical philosophy to be true. Nor is it any answer to this objection to show that Intuitionist Metaphysicians

have in certain cases affirmed as immediately known propositions that are not true; since the question is not whether error is incident to non-empirical cognitions, but whether we may legitimately assume that it is not incident to empirical cognitions.

But further, even supposing that we only recognise, as experts in discriminating immediate knowledge, persons who will not allow anything to be immediately known except particular facts, serious difficulties still remain; because we find that these experts disagree profoundly among themselves. We find—not to speak of minor divergences—that there is a fundamental disagreement between two lines of empirical thought which—if I may coin a word for clearness' sake—I will call respectively *materialistic* and *mentalistic*. When a Materialistic Empiricist affirms that physical science is based upon experience he means that it is based on immediate knowledge of particular portions of something solid and extended, definitely shaped and sized, moving about in space of three dimensions. Whether he regards this matter as also coloured, resonant and odorous, is a more doubtful question; but probably he would say that colour, sound, and odour are effects on the mind—or perhaps on the brain?—of the molecular movements of material particles. I can hardly profess to give a consistent account of his views on this point, if he is a thorough-going materialist, but it is enough for my present purpose that he at any rate believes himself to know immediately—through touch, if in no other way—matter with the qualities first mentioned.

The Mentalistic Empiricist, on the other hand, maintains that nothing can be immediately known except mental facts, consciousness or feeling of some kind; and that if we are right in assuming a non-mental cause of these mental facts—which he is generally inclined to doubt—we must at any rate regard this cause as unknown in every respect except its mere existence, and this last as only known by inference.

How, then, is Empiricism to deal with this disagreement? It cannot be denied to be rather serious; since, though materialism has plenty of support among philosophising men of science, the tendency of the main line of English empirical philosophy, from Locke downwards, is definitely towards Mentalism. I may observe that the more thoughtful Materialists, like Dr. Maudsley, do not exactly say that there are no mental facts which we may contemplate introspectively. But they hold that no scientific results have ever been reached by such contemplation; and they say very truly that physical science has always progressed by taking the materialistic point of view, and that there is no admitted progressive science of psychology, proceeding by the introspective method, which can be set beside

the physical sciences. Hence, they boldly infer that there never will be such a science; and in fact, they are inclined to lump the Mentalists along with Transcendentalists and others, under the common notion of "Metaphysicians" (used as a term of abuse), and to charge them all together with using the Subjective Method, condemned as fruitless by experience. The Mentalists do not quite reply in the same strain; indeed, they have rather a tenderness for the Materialists, whose aid, as against Transcendentalism and Superstition, is not to be despised. But they say that the Materialists are inexpert in psychological analysis, and that what they call "matter" is really, when analysed, a complex mental fact, of which some elements are immediately known and others added by inference. In so saying, the Mentalists appear to me to use the term "inference" loosely, and also to fall into the confusion before pointed out between the *antecedents* (or concomitants) and the *elements* of a cognition. Certainly I find myself unable to analyse my notion or perception of matter into feelings or ideas of feelings, tactual, visual, or muscular; though I do find that such sensation-elements present themselves as inseparable accompaniments of my notion or perception of matter, when attention is directed to it introspectively. But my object now is not so much to enter into this controversy between two sets of Empiricists, as to point out the serious obstacle it opposes to a satisfactory determination of the question what is immediate cognition.

Let us suppose, however, that this controversy has been settled to the satisfaction of both parties, in the manner in which some empiricists have tried to settle it. Let us suppose that both Materialists and Mentalists agree to affirm (1) that we immediately know the external world, so far as it is necessary to know it for the purpose of constructing physical science; (2) that we immediately know nothing but our own consciousness, and (3) that these two statements are perfectly consistent. It still remains to ask who are the "we" who have this knowledge. Each one of us can only have experience of a very small portion of this world; and if we abstract what is known through memory, and therefore mediately, the portion becomes small indeed. In order to get to what "we" conceive "ourselves" to know as "matter of fact" respecting the world, as extended in space and time—to such merely historical knowledge as we commonly regard not as "resting" on experience, but as constituting the experience on which science rests—we must assume the general trustworthiness of memory, and the general trustworthiness of testimony under proper limitations and conditions. I do not for a moment say that we have no right to make these assumptions;

I only do not see how we can prove that we have such a right, from what we immediately know.

At this point of the argument Empiricists sometimes reply that these and similar assumptions are continually "verified" by experience. But what does "verified" exactly mean? If it means "proved true," I challenge any one to construct the proof, or even to advance a step in it, without assuming one or more of the propositions that are to be verified. What Empiricists really mean, I conceive, by "verification" in this case is that these assumptions are accompanied by anticipations of feelings or perceptions which are continually found to resemble or agree with—though not identical with—the more vivid feelings or perceptions which constitute the main stream of consciousness. Now, granting that such resemblance or agreement may be immediately known, I yet cannot see that anything is gained towards the establishment of the cardinal doctrine of Empiricism. For there is a similar agreement between actual experience and the anticipations accompanying all the general propositions—mathematical, logical, or physical—which philosophers of a different school affirm themselves to know immediately; so that this "verification" can hardly justify one set of assumptions, as against the other.

If, finally, the reader who has got through this paper should say that my cavils cannot shake his confidence in experience, or in the aggregate of modern knowledge that has progressed and still progresses by accumulating, sifting, and systematising experience—I can only answer that my own confidence is equally unshaken. The question that I wish to raise is not as to the validity of received scientific methods, but as to the general epistemological inferences that may legitimately be drawn from the assumption of their validity. It is possible to combine a practically complete trust in the procedure and results of empirical science, with a profound distrust in the procedure and conclusions—especially the negative conclusions—of Empirical Philosophy.

H. SIDGWICK.

V.—NOTES AND DISSCUSIONS.

THE SENSE OF SIN AND EVOLUTION.

THE ethical opinions of mankind may be said, broadly speaking, to have found expression in one or other of the rival schools of Intuitionists and Utilitarians. There is little practical difference in the precepts which emanate from these opposite sources, the real point at issue between them being the first principles from which these precepts derive their authority. It is plain that the moral conceptions of the man who regards the right as a large generalisation from the useful must differ widely enough from those of one who believes that the rightness or wrongness of an action is something wholly independent of its consequences; that though the dictates of virtue and those of utility frequently coincide, they are never confounded; and that we are enabled to distinguish and do distinguish right and wrong by means of some innate principle which determines our conceptions of these without any reference to utility. But however manifold may be the apparent points of difference, the foundations on which they rest are few and simple, and it is round these that the battle of discussion chiefly rages.

The sense of Sin which accompanies the breach of a moral law is one of the commonest, and at the same time, one of the strongest arguments of the Intuitionist on behalf of the existence of that innate moral sense which is the cardinal doctrine of his school. It is urged, and with considerable force, that the feeling of guilt which invariably follows the commission of an act *recognised* as wrong, is as invariably absent from the feelings which ensue on a mere disregard of the dictates of utility: and from this it is plausibly inferred that the idea of the right is generically different from the idea of the useful. It is hardly necessary to observe that both parties to the discussion seek their facts in the experiences of a moral man; for the indifference of a man devoid of moral principle is of no evidential value to either. At first sight it might appear that so fundamental a difference must be incapable of removal by any philosophical subtlety; but the school of Evolution claims to have reconciled these apparently conflicting creeds, and to have fused in a deeper synthesis the superficial antagonism which divided them. The dispute between the two philosophies is declared to be due to an imperfect appreciation on either side of the full significance of a common set of facts, and their reconciliation is effected by showing that, on the one hand, the Utilitarians are correct in referring the *ultimate* origin of moral ideas to the dictates of expediency, and on the other, that the Intuitionists are completely justified in asserting that in the man of the present day, or at least in civilised man, there is a moral sense whose promptings are wholly irrespective of any estimate of pleasure or pain.

Accepting as correct the main points of the Evolutionist explanation, it yet appears to me that no completely satisfactory account of the origin of the sense of sin has so far been given by this school of philosophy, and it is on this subject that I shall endeavour to throw out a few suggestions in the present paper.

As a preliminary step it will be useful to trace briefly the general line of the Evolutionist argument. The moral sense is declared to be not ultimate but derivative, and built up out of slowly organised experiences of pleasure and pain. Now it is clear that, as a rule, pleasure must be the concomitant of acts which are beneficial to the individual, and pain the concomitant of acts which tend to his prejudice, for otherwise the species must infallibly perish : and this is as true of the community as of the individual. But while in the case of the individual, pleasure and pain are the motives which respectively prompt or prohibit beneficial or injurious actions ; in the case of the community the place of these motives is supplied by a sense of right and wrong, that is, according to the Evolutionist explanation, a sense that a certain action or class of actions is beneficial or injurious to the community. That this is a difference not merely of quantity but of kind is evident from the fact that the good of the community and that of the individual may easily conflict. But in seeking for the origin of this sense, we are not to conclude that the moral judgment which we pass on any act is the result of a conscious deliberation as to its effects on the community, for we are instantly confronted by the fact that our approval or disapproval of certain actions is quite instinctive. Nor again is this instinctiveness to be explained, as we might be tempted to explain it, by regarding it as the outcome hereditarily transmitted of a long series of ancestral deliberations to the same effect. Its true origin is to be found in the sense of sympathy, which, when duly developed is as keenly alive to an injury, real or represented, to the community as the individual organism is to a physical injury. The growth of this sense of sympathy, for which most gregarious animals possess a rudimentary capacity, is attributable to a variety of causes, but mainly to the lengthening of the period of infancy which is found to accompany a growing complexity of intellect. It is impossible to enter at length upon this most interesting subject within the necessary limits of the present paper, but it may suffice to say that the point is most ably argued by Mr. Fiske (*Cosmic Philosophy*, II., ch. xxii.), whose conclusions are supported by the experiments of Mr. Wallace. The effect of this prolonged infancy in promoting the development of sympathy is so admirably set forth by Mr. Fiske (*Cos. Phil.*, II., p. 344), that I cannot do better than transcribe the *ipsissima verba* of his explanation.

"The prolonged helplessness of the offspring must keep the parents together for longer and longer periods in successive epochs ; and when at last the association is so long kept up that the older children are growing mature while the younger still need protection, the family relations begin to become permanent. The parents have lived so long in company, that to seek new companionship, involves some disturbance of engrained habits ;

and meanwhile the older sons are more likely to continue their original association with each other than to establish associations with strangers, since they have common objects to achieve, and common enmities, bequeathed and acquired, with neighbouring families. As the parent dies, the headship of the family thus established devolves upon the oldest or bravest, or most sagacious male remaining. Thus the little group gradually becomes a clan, the members of which are united by ties considerably stronger than those which ally them to members of adjacent clans, with whom they may indeed combine to resist the aggressions of yet further outlying clans, or of formidable beasts, but towards whom their feelings are usually those of hostile rivalry."

When this sense of sympathy, which is in effect a sense of collective pleasure or pain, is once called into existence, it becomes to the individual a motive of action generically akin to his sense of individual pleasure and pain, and, like these, gives rise to pleasurable and painful associations, but connected respectively with the furtherance and violation of the common weal. We must be careful however to note this important distinction between the feelings of individual and of sympathetic pleasure and pain, namely, that whereas the feelings connected with individual pleasures and pains are purely egoistic or self-regarding feelings, those connected with sympathy are what Mr. Spencer calls "ego-altruistic" feelings; that is, they concern the happiness of the individual in so far as it depends upon the feelings with which his fellow-creatures regard him. Consequently, we are not justified in describing as selfish the actions which are dictated by sympathy, though all sympathy is in its origin a kind of self-pleasing.

The next stage of moral development is marked by the appearance of the feelings of regret and remorse, which are explained to be the fundamental ingredients of conscience, and which owe their power, if not their existence, to the comparatively transient character of the pleasures attending the gratification of the purely selfish impulses, as contrasted with the permanent operation of incentives to actions beneficial to the community. Consequently, though under the overpowering influence of immediate desire a man may gratify some self-regarding impulse at the expense of the community, the abiding force of the social sanctions forbidding the act (which are ever present to the mind, though necessarily somewhat in the background) will sooner or later cause him to feel that dissatisfaction with himself, accompanied by a resolve to act differently in the future, which is the earliest beginning of conscience. Finally, there comes a class of supernatural sanctions attached to violations of the interests of the community, which, springing from the dread of the savage for the vengeance of his dead chief, finds its latest expression in the Gehenna of civilisation.¹

¹ The above account of the growth of the moral sense has been taken mainly from Mr. Fiske's *Cosmic Philosophy* (II., ch. xxii.), with references to the works of Mr. Spencer, Mr. Darwin, and other writers of the Evolutionist school. From the nature of the present essay it is of course inevitable that I should borrow largely from such sources, and I may perhaps be

Such is the outline of the development of the moral instincts on the principles of Evolution. But while admitting the general accuracy of the account, it appears to me that it offers no adequate explanation of that sense of sin which is the subject of the present essay. The moral feelings and distinctions with which the theory deals rest ultimately on a basis of pleasure and pain, and I for my part agree that this is the true basis. But it seems to me still open to the Intuitionist to maintain that it has failed to explain that particular pain which constitutes, or is at any rate the source of, the sense of sin. The question is indeed touched, though only touched, in the account given above of the genesis of regret and remorse; but the solution offered is meagre and vague, if not wholly unsatisfactory. And here I may remark that I cannot acquiesce in the view that regret and remorse are generically identical; on the contrary it appears to me that their respective origins are perfectly distinct. Strictly speaking, the feeling of remorse follows only on actions which involve a breach of duty; regret on the other hand is constantly felt in connexion with actions which contain no moral element whatever. A man, walking to catch a train, by pure accident loses his way and accordingly misses the train. He is thereby prevented from keeping an appointment, and a series of disastrous consequences is the result. But however much he may regret these consequences, it is impossible that they should cause him any remorse. That he should have occasioned their occurrence is his misfortune but not his fault, and in the absence of fault I submit that the feeling of remorse cannot arise. It is true that this feeling is often accompanied by the feeling of regret, but even where they relate to the same conduct, a careful analysis will show that they are distinct alike in character and in origin, and it behoves us to be on our guard against confounding them. But to proceed with my criticism. These *internal* sanctions of regret and remorse which enforce the observance of the laws of what I may perhaps call social morality, are represented as differing only in massiveness and continuity of operation from those which attend the violation of the good of the individual. In other words, the distinction is one not of quality but of amount. If this be true a similar feeling of remorse ought to attach, at any rate in some degree, to any act tending to injure individual welfare, the commission of which is prohibited by a sufficiently powerful sanction. Under ordinary circumstances death is the most dreaded of evils. It is the last punishment which the vengeance of the community can inflict on the offender who has transgressed its laws, statutory or moral; and of course where the individual alone is concerned, the extinction of his existence, and of the pleasures which existence makes possible, is the very thing which his whole conduct, positively or negatively, aims at averting. Yet we do not find, as a rule, that an unnecessary risk of life entails any regret, and still less any remorse on the individual

allowed, in lieu of a succession of separate references, to acknowledge my obligations to them collectively in this note.

who runs the risk.¹ It is, I think, plain that so far as the dissatisfaction which ensues on a breach of social morality is due to a recognition, inherited or otherwise acquired, of the pains and penalties which the injured community may exact, it contains no trace whatever of that which we now understand by the feeling of remorse. I must not be understood to deny the existence of this feeling as one of the avenging sanctions which visit with swift retribution the violation of a moral law; but I venture to differ from the current doctrine of Evolution in believing that its origin is to be found, not in a dread of the punishment which the community will or may exact for the misdeed, but in the associations connected with a somewhat different source of dissatisfaction. The consideration of this last-mentioned source of dissatisfaction is the ultimate purpose of this paper; but, before proceeding to discuss it, it will be well to pursue somewhat further our examination of the teaching of the Evolutionists on the subject.

A little reflection will convince us that the sense of sin attaches not only to acts which injure the community, but also to many acts whose injurious effects are strictly confined to the individual. Nor does the Evolution-theory fail to take cognisance of this; indeed it is in this fact that it purports to find the connecting link between religion and morality. But the religion here referred to is distinct from the popular anthropomorphic religion, consisting as it does in the recognition of

"A Power to which no limit in time or space is conceivable, of which all phenomena, as presented in consciousness, are manifestations, but which we can know only through these manifestations" (Fiske, *Cosmic Phil.* II., 414). Consequently while "a philosophy of morality has for its subject-matter the principles of action conducive to the right living of the individual so far as the well-being of the community is concerned; so a philosophy of religion has for its subject-matter the relations of the individual to the Inscrutable Power manifested in the universe, and the principles of action conducive to his right living considered as a part and parcel of the universe" (p. 465). Thus, as "on the anthropomorphic hypothesis, sin is an offence against a personal Deity, consisting in the disobedient transgression of some one of his revealed edicts"; so "from the scientific point of view, sin is a wilful violation of a law of nature, or—to speak in terms of the theory of evolution—it is a course of thought or action, wilfully pursued, which tends to throw the individual out of balance with his environment, and thus to detract from his physical or moral completeness of life" (p. 455). "Now when a law of nature has been violated (to use the current phrase) the religion of the scientific inquirer tells him that a sin has been committed; and he is smitten with a sense of self-reproach no whit less keen than that experienced by his mediæval predecessor. . . . Regarded as a product of psychical evolution, this sense of sin, peculiar to the most highly developed organisms, is the analogue of the sense of pain shared in

¹ It must not be supposed that I ignore the moral obligation incumbent on each individual of maintaining his physical well-being, which is so admirably expounded in Mr. Spencer's *Data of Ethics*. But a doctrine which is scarcely yet appreciated in the 19th century, can hardly have been an active force in the genesis of moral ideas.

some degree by all organisms endowed with consciousness. The sense of sin, like the sense of pain, is normally deterrent from actions which tend to diminish the completeness of the correspondence in which life consists. But while the sense of pain is common to those creatures whose incentives to action are purely selfish, the sense of sin can be possessed only by those creatures whose intelligence is sufficiently complex to enable them to recognise the relationship in which they stand to the Omnipresent Power, and whose highest incentives to action are therefore quite impersonal" (p. 456).

I have quoted Mr. Fiske not only to gain the benefit of his able exposition of this account of the sense of sin, but also because he is, so far as I am aware, the only Evolutionist writer who has treated this point at all in detail. The development and justification of the principles of morality have met with ample consideration at the hands of Mr. Spencer and others of the Evolutionist school; but this particular sanction has, I think, as a rule been unduly ignored.

Now it will be seen that the feeling of remorse attending the violation of the laws of social morality, and the sense of sin arising on the commission of an act which is immoral only in its relation to the individual, are referred by the above account to two distinct sources. The feeling of remorse is traced to a dread of the vengeance of the community; the sense of sin is said to be the analogue of physical pain, caused by an injury to what may be described as a moral nervous system. It appears to me that this distinction cannot be upheld. The testimony of individual experience surely declares that the feeling of remorse and the sense of sin, as at present manifested, are indistinguishable. The reproaches of conscience which follow on the commission of a social wrong, *e.g.*, theft, do not differ in kind from those which arise in retribution for our secret sins against our own individuality. Their torments may vary in degree, but in quality they are identical; and if this be so, there is at any rate a *primâ facie* presumption that their sources are identical also. I have already endeavoured to show that a dread of the vengeance of the community cannot be accepted as the origin of the feeling of remorse; it therefore remains to consider whether the sense of sin can be correctly referred to a feeling of moral injury to the organism analogous to the sense of physical pain. Now in the first place we must observe that this "psychical analogue of physical pain" appears on the scene rather in the guise of a *deus ex machinâ*. It leaps into the ranks of moral sanctions like an Athênê in full panoply of war from the brain of Zeus, and, speaking with all the respect that is due to a writer of Mr. Fiske's learning and ability, I must confess that its introduction seems to me a little unscientific. All philosophy worthy of the name strives to base its doctrines on a body of causally connected truths depending as little as possible for their coherence on the presence of uncaused entities. But as Evolutionists we are peculiarly bound to trace with rigorous exactness every step in the theory propounded for acceptance; and in the present instance this necessity seems to have been somewhat overlooked. This account offers no explanation of the different stages in the development of the sense of sin, nor of its presence under condi-

tions which are undoubtedly prior to the possession of an intelligence sufficiently complex to recognise its relationship to the Omnipresent Power. Such an intelligence can hardly be ascribed to mankind as a whole at the present day ; but the sense of sin, so far as we are in a position to judge, dates back for centuries. I am far from denying that the sense of disturbance of our relations with the Absolute entailed by a sinful action would be one of the strongest deterrents against its commission ; but I cannot think that such a complexity has as yet been widely attained even by civilised mankind. I do not say that the explanation is impossible, but I do venture to think that it is at present incorrect.

If then I am right in supposing that the feeling of remorse should not be regarded as distinct from the sense of sin, it remains to inquire to what origin are we to refer the sense of sin. It appears to me that it springs originally from, and even now ultimately rests on the sense of inferiority which is one of the painful results of the violation of a maxim either of social or of self-regarding morality. When an immoral act is committed—be it a wrong to the community or a wrong to the individuality of the sinner—there always follows (except in the case of an *ἀκολαστός* where the moral principles are destroyed) a feeling that we should somehow be in a better position if the act had not been committed. This feeling is not, as I imagine, the recognition of a disturbance of relations between ourselves and the Absolute ; nor is it, except indirectly, a dread of the penalties which the act may entail from the wrath of an injured community. The rules of morality which govern our actions, formulated as they are from a registration of the pleasurable or painful consequences by which these actions are followed, are in very truth a formulation of the conditions of a happy and successful life. The imperative power of the law remains long after its rationale has ceased to be present to consciousness ; and accordingly, though the modern sense of sin seems to us primordial and self-justifying, I believe that it ultimately rests on a primitive experience that an act of immorality places us at a disadvantage with our neighbours in the struggle for existence. It is not a fear of what the community may exact in retribution, except so far as the community be held to be entrusted with the execution of that merciless law of the survival of the fittest, which it may be said to enforce in spite of itself. But this is a purely negative effect of social influence, and what we really dread is the natural result of the act upon ourselves. Nor, as I have said, can it be regarded, at any rate in its earliest stages, as a sense of violation of our relations with the Absolute ; for an idea of such complexity as this is quite out of reach of the rudimentary intelligence which accompanies the first growth of moral sanctions. On the other hand, I venture to think that it supplies an adequate explanation of the difficulty to which the Intuitionists triumphantly point as unsolved and unsolvable by any school except their own. The *differentia* of the sense of the sin, whereby it is distinguished from the other internal sanctions of morality, is the peculiar and perhaps indescribable sting which it inflicts, and which it is

utterly beyond the power of mere penalties, however heavy, to produce. But it is precisely this sting which is one of the most marked effects of the feeling of inferiority, as may be seen by a comparison of the torments produced by jealousy, which is another form under which a sense of inferiority, real or imaginary, is expressed, though in a somewhat different connexion.

There can be little doubt, I think, that this sense of inferiority made its appearance at a very early stage in the moral development of man. The first determinants of action are certainly to be found in the pleasures and pains immediately attending the various kinds of conduct possible to primitive man. The dread of retaliation must clearly have operated as a deterrent against the commission of an injury to his neighbour, or to the community. The next stage was reached when injurious actions became classed as things to be avoided in themselves; and at this point the maxims of morality became absolute laws so far as the individual was concerned, because, in addition to the external penalties which their violation involved, their observance was further enforced by the internal sanction of a subjective feeling in their favour, of which a painful breach was caused by a vicious action. It is true that the real origin of the rule became in this way partially obscured, because it was mainly built up of transmitted ancestral experiences wherein the rule survived but not the reason—the *ἦν* without the *διότι*; but none the less was its binding force derived from a conviction that in obeying it men ministered in some way perhaps imperfectly understood to their own welfare. In modern times a neglect of individual welfare may be largely counter-balanced by accidental advantages, such as inherited wealth, the assistance of powerful friends, and so forth; but in early communities not only was the struggle for existence much more severe, but the fortune of every individual depended almost, if not quite, exclusively on his own capabilities and conduct. In such a community any neglect or violation of the conditions of success would be followed rigorously by its natural consequences. Cowardice or treachery in battle against the common foe, or a breach of such rude faith as might obtain between savages would bring immediate retribution in the shape of retaliatory injuries or even death. But apart from these, there would be a further punishment in store for the offender in the fact that his past misdeeds would stand in the way of his future advancement. The coward or traitor if not killed outright would be deprived of his share of future spoils, as well as of any prospect of pre-eminence in his clan, with the concomitant privileges and benefits which such pre-eminence might confer. In the same way the perpetrator of a private injury would find himself thwarted, not only by the animosities which his actions had kindled, but by the withdrawal of the confidence (however rudimentary it might be) of those whom he had injured. At this stage no doubt any extensive failure of the external penalties which accompanied misdeeds might have caused a disappearance of the feeling that such acts were bad even in the absence of these penalties; in which case the internal sanctions,

including the sense of inferiority, must have perished also. But our knowledge, so far as it goes, of the conditions of primitive society forbids us to suppose that such a failure can have taken place; and we may therefore reasonably conclude that the sense of inferiority, as an internal sanction enforcing the maxims of early morality, is at least as early in point of time as the first growth of the feeling that injurious acts are *mala in se* apart from the external penalties which may attend them.¹

If this be so, it is easy to understand the immense value as well as the immense strength of the sense of inferiority as a moral sanction. The moment the conception of immorality as an evil apart from its consequences arises in the human mind, the sanction of inferiority springs up by its side, an ever present and ever watchful guardian of the moral law, a prophet and an avenger, whose warnings are heard in the voice of conscience and whose vengeance is experienced in the pangs of remorse. When this stage of moral progress has been reached, the certainty of external retribution becomes of less importance, so far as the individual is concerned, to the due maintenance of the moral sense; for whether a particular breach of moral law be detected or not, the sanction of inferiority rises up unflinchingly in judgment against the offender, and, through the medium of hereditarily transmitted experiences, with ever increasing strength through succeeding generations.

It is this omnipresence and continuity of operation which constitutes one great source of the strength of the sanction. The other is to be found in the desire and dread of power which are feelings common to the whole of humanity, and which are peculiarly prominent among the less civilised races. The reverence of power is sufficiently intelligible under social conditions where might was practically right, and physical conditions which confronted the slender resources of primitive man with the stupendous and untamed energy of the forces of nature. But without dwelling longer on the origin of this reverence, it is necessary to touch briefly on its relation to the sense of inferiority now under discussion. The reverence of power, as I have said, combined the two elements of dread and desire, and to each of these the sanction of inferiority lent a well-nigh imperative force. The desire of power led naturally to a desire of the means of attaining it. These obviously consisted of excellence of all kinds, including of course moral excellence, however scanty the content of the term may have been. Similarly, power being an object of dread as a hostile external influence, every form of inferiority, moral or other, diminished the individual's capacity for resisting its attacks.

Thus it will be seen that the consequences of inferiority are not

¹ It is not impossible that the operation of this sanction may have been felt even at an earlier stage of moral development, but so long as the stern penalties of retaliation were the principal deterrents from injurious action, the more delicate restraint of internal sanctions can hardly have had much practical effect.

limited to a single definite penalty, which may or may not be avoided, but include all the possible injuries which can result to the organism from an imperfect adaptation to its environment. And its efficacy as a sanction lies not only in the wide range of external evils to which it exposes the individual, but in the inward torments of the peculiar sting by which it is normally accompanied. Such I conceive to be the origin, and such the justification of the sense of sin.

In conclusion it may be useful shortly to re-state the position I have sought to establish, in its relation to Intuitionism, Utilitarianism and Evolutionism respectively. The Intuitionist regards the sense of sin as directly due to a violation of the categorical imperative of duty. But to this it may be objected, first, that the existence of this maxim, as something originally innate, has been and still is vigorously disputed; secondly, that its proof or disproof is rendered impossible by the transcendental character claimed for it, whereby it is at once placed beyond the reach of an investigation which could only be conducted under the conditions of relativity. Passing to Utilitarianism, we find that the sense of sin is referred to a conscious or unconscious estimate of pleasure and pain. Against this may be urged the objection of the Intuitionists that, on the testimony of consciousness, the sense of sin which attaches to the idea of the wrong is generically distinct from the sense of pain which is associated with the idea of the unprofitable. Finally, according to the theory of Evolution, the sense of sin is a "psychical analogue" of the sense of physical pain, but, unlike physical pain and the remorse which attends the violation of a law of social morality, can only be felt by an intelligence sufficiently complex to recognise the relationship in which it stands to the Absolute and Inscrutable Power, which, though the cause of all things, is only known to us in its phenomenal manifestations: in short an intelligence which is capable of discerning that the laws of nature are, in the deepest and truest sense, the decrees of God.

In criticism of this view, I have attempted to point out (1) that the distinction raised between remorse and the sense of sin cannot be upheld; (2) that in this account the growth and development of the sense of sin are left in considerable obscurity; (3) that the sense of sin is actually found in societies and individuals where no such complexity has been attained.

My own explanation of the sense of sin I have given above as fully as the necessary limits of the present discussion permit. I cannot of course pretend to have treated the subject exhaustively, nor indeed to have done more than delineate in the barest outline the theory that I advance. But if I have succeeded in representing intelligibly its general character, I shall have attained all that I hoped for, and indeed all that I attempted.

NORMAN PEARSON.

MR. GURNEY ON THE UTILITARIAN 'OUGHT'.

WHEN there appeared in the last No. of *MIND* an article by Mr. Gurney, proposing to deal directly with that desperate little word 'ought'—a word which seems to contain within its small compass the alpha and omega of all the more fundamental difficulties of ethical science—most persons who have made that science a study will have felt their interest roused. And those who, like myself, hope to see these difficulties reduced by the final resolution of every 'ought' into an ordinary scientific 'is,' will have rejoiced to find that it was Mr. Gurney's aim to effect such a resolution. My own regretful feeling that he has not, however, been herein successful is probably shared by many, and I venture the following criticism upon his treatment.

Mr. Gurney's aim, as he himself states it on p. 350, is to show that the fundamental utilitarian principle, "I ought to do that which promotes the greatest happiness" is "not simple but compound," and "is made up of two simple elements, an ultimate *fact* and an ultimate *axiom*, which fact and which axiom are both in nature entirely scientific". He argues, that starting from such simple psychological propositions, as, "I feel a desire for my own happiness," or "I feel a desire for somebody else's happiness," or (it may be) "for the general happiness," we can pass directly from these—which are in no sense ethical propositions—to an axiom, or general principle, which, while it also is strictly scientific in form, will nevertheless furnish the required basis for utilitarianism. For, as soon as in sequence upon the above desires, we have become alive to the fact of the existence of various lots of happiness, variously distributed among individuals, and have also become alive to the possibility of conflict among them, we are obliged as rational beings to conclude that the greater happiness should always be preferred to the less—even when the less happiness is our own, and the greater is that of other people. We arrive at the knowledge of this axiom by reflection upon our particular desires for our own or somebody else's happiness, and upon the existence of happiness, actual or possible, outside this, just as we arrive at the knowledge of the axiom "a whole is greater than its part" by reflection upon the nature of certain wholes and certain parts. It would be as irrational, Mr. Gurney maintains, to accept the facts in the former case and yet reject the principle relating to them, as it would be to do so in the latter case. To prefer the happiness of x alone to the greater happiness of $y + z$ is as absurd as to treat one unit of anything as equal to two. Of course Mr. Gurney will allow that people may prefer being absurd to being moral, if their morality costs them a sacrifice, but he has the satisfaction of pointing out to them that if they are immoral they are so in the teeth of demonstration.

We may wonder why the word 'ought' is introduced at all into the utilitarian maxim when this strictly scientific view of it is taken; but Mr. Gurney explains that it is not introduced into it in any sense

in which it may not also be introduced into a mathematical axiom. We mean nothing more by it, he says, than we do when we say that any one who considers whether a whole is greater than its part, *ought* to decide in the affirmative. It may strike us that the parallel proposition to this would be, not the one given above, but, that 'any one who considers whether the happiness of $x + y$ is greater than the happiness of x or y taken singly, ought to decide in the affirmative'. Such a proposition, however, would scarcely serve our ethical ends; so let us consider how Mr. Gurney's explanation applies to the principle he has actually given us.

"Ought" in the proposition first quoted must surely mean one of two things: either, that the person who does not decide that a whole is greater than its part will have to face the flat contradiction of experience, or else, that the proposition named must be accepted under the penalty of thought-annihilation—the opposite of it being inconceivable. But how can either of these interpretations be possibly applied, on the given basis, to 'ought' in the proposition, "The greatest happiness *ought* to be preferred"? We surely cannot maintain that a person's selfish preference of his own happiness to the greater happiness of others cannot practically be enforced; nor can we maintain that it is psychologically impossible to desire or to seek one's own happiness more than that of others. Where then is the parallel between the latter 'ought' and the former?

Starting from such a basis as that which Mr. Gurney has given us, namely, the existence of a desire for something, and adopting his method of comparing the object of this desire with other similar objects, it would seem that we might with at least equal show of fair argument obtain conclusions which would be directly opposed to the one at which he is aiming. We overhear some one maintaining that because he finds himself pursuing now this item of his own happiness and now that, and because he can conceive many more items than these as attainable, he therefore feels bound as a reasonable being to endeavour to secure them all, even at the sacrifice of others' happiness. Or, passing to different ground, might not the argument be that because I desire to eat my own dinner and there are many other dinners to be had, as good or even better than mine, I should therefore as a rational being endeavour to eat them all?

As the explanation of Mr. Gurney's point of view obviously cannot be found here, we must seek it elsewhere, and I think we may seek it successfully, if we attend carefully to his statements of those simple psychological facts which are to lead us up to the axiom. There may be a world of difference in the meaning of two such propositions as 'I feel a desire for my own happiness,' and 'I recognise my happiness as an end'; the former can never be more than the statement of a simple psychological fact, but the latter may be a truly ethical proposition in disguise; it may mean and generally does mean that I regard my happiness not merely as an end at which I *do* aim, but as an end at which I *ought* to aim. These two meanings are frequently confused in Ethics under the word "desirable," and to this

fact Mr. Gurney himself explicitly calls attention on p. 351; but we cannot therefore feel bound at once to set him free from all charge of having in his own argument fallen a prey to a similar ambiguity; unfortunately, it is no rare thing to find even the best of thinkers tumbling themselves into a pitfall, while they are in the very act of commenting upon the disasters it has occasioned to others. If we refer to p. 354 we find Mr. Gurney arguing as follows. Starting merely "on the understanding that a certain thing is the thing actually by me more desired," we apply an axiom and get an "*ought*," which we retain "even when that thing has become, it may be, the thing by me less desired". And our justification is, that "of two things which are essentially ends, the greater, *i.e.*, that which has most end-stuff in it, must *quâ* end prevail"; that "the perception of the *more* end-stuff, the *more* of that the essence of which is to direct action, cannot be affected by the fact that the *less* with which it is compared has its place in *my* mind, and through that momentary proximity *looks* more to me. And what my egoism may make it impossible for me to prefer in my actual desire still remains for me what it is reasonable to aim at in my conduct." Here the conception of my happiness as having "*end-stuff*" in it, is substituted for the former representation of it as a thing simply *by me desired*; and although it is possible to use the two phrases in an identical sense, they are not at all likely to be so used; and Mr. Gurney's argument leads us I think to the conviction that he has not so used them.

If the phrases, 'my happiness has end-stuff in it,' and 'other people's happiness has end-stuff in it,' mean nothing more than that my happiness stirs desire in me and that theirs stirs desire in them, what possible interpretation will this enable us to put upon the assertion, that that which has more end-stuff in it than my happiness must reasonably prevail over my happiness in the determination of my conduct? It can in consistency mean only that that which stirs more desire in me than my own happiness should (or rather we may then say *will*) prevail with me. Mr. Gurney goes on to explain in the sentence last quoted from him, that although we do not perhaps actually prefer the greater happiness of others to our own less happiness, we can yet *perceive* that there is more of end-stuff in it and we should act accordingly; but how can we (in accordance with our premisses) perceive that it has more end-stuff in it, if as a fact it does not give rise to more desire in us? To say that I perceive that there is, in the happiness of the many, more of that "the essence of which is to direct action," does not mend matters; for this can only mean that as each person's happiness tends to stir desire within him, the happinesses of many will tend to stir many desires and direct a greater number of actions; and what has this to do with the direction of *my* conduct,—which is the point we are anxious to reach?

All this seems to end in reducing us to the conclusion that Mr. Gurney's "*ultimate fact*" was not quite so simple as he supposed, and that, under the guise of the proposition "I desire my happiness," such

a proposition as 'I recognise my happiness as being an end-in-itself *quâ* happiness' was virtually introduced; and this is equivalent to 'I judge that my happiness *quâ* happiness ought to be sought,'—a distinctly ethical proposition, and one which brings us back to all the old ethical puzzles which Mr. Gurney was seeking to avoid. We now find ourselves exactly in the position to which Mr. Sidgwick has already brought us in *The Methods of Ethics*, Bk. iii. ch. 12, and Bk. iv. ch. 2; and Mr. Gurney's grounds for passing from the above individualistic ethical proposition to a universalistic one can scarcely be other than those which Mr. Sidgwick there gives us. If a person says, 'my happiness *quâ* happiness is good ultimately, and as good ought to be sought by me,' we can then point out to him that in consistency with this statement he cannot refuse to regard as worthy of his pursuit other happinesses than his own, and in proportion to their magnitude. In saying '*quâ* happiness,'—or, as Mr. Sidgwick puts it, in regarding "his happiness as good not only for him, but absolutely," he has rendered it logically impossible for himself henceforth to hold that his own particular portion of the good may be pursued to the detriment of other portions. He cannot, without recalling his words, now limit the end which he has thus postulated, by a determination of it in sole relation to himself; all such limitation in practice must appear purely arbitrary, *i.e.* irrational. If, however, his postulate had been that 'my happiness ought to be the aim of my conduct, not *quâ* happiness merely, but *quâ* my happiness,' there would have been no basis for transition to Universalistic Hedonism. That Mr. Gurney finds fault with Mr. Sidgwick for making this distinction (see pp. 359, 360) is additional evidence of the correctness of our general criticism. He maintains that in both cases the argument for the Universalistic principle will equally hold; but, in the case last mentioned, it seems to me that this principle would land us in the inconsistency from which in the former case it freed us; we should be reduced to the absurdity of proclaiming that, because we regard our own happiness as the sole fit and proper end for us to pursue, we feel bound to subordinate it to some other end, namely, the general happiness! Mr. Gurney would here say, however, that this regarding of our own happiness as an end which ought to be aimed at, irrespective of all other happiness, is itself an absurdity of the kind he is arguing against, and that therefore we cannot consent to take it as a datum; we can only allow it force when it has been modified by the exclusion of all reference to other happiness than our own, *i.e.*, when no comparison or conflict has arisen between them. When it is thus modified, he adds that 'I ought to aim at' means nothing more than that 'I choose or mean to aim at'. But this leaves the further question unsettled, whether, if we accept the latter form of expression, it is to be taken to mean that 'I choose my happiness *quâ* happiness,' or that 'I choose it *quâ* mine'. If the former be the proper interpretation, we can then no longer regard the proposition as purely psychological; it is not equivalent to a statement of the facts, 'I feel a desire for my happiness,' or 'I do actually

pursue my own happiness'; it involves an 'ought' in the old-fashioned ethical sense; it means, that although I may not so far have pursued or desired any happiness except my own,—my attention perhaps never having been directed to any other as possibly affected by my conduct,—yet that I regard Happiness *in itself*, Happiness anywhere and anyhow, as that in reference to which alone conduct should be determined. If, however, the proper interpretation be 'I choose my happiness *quod mihi*,' and if we grant Mr. Gurney his anti-egoistic ethical postulate, namely, that an 'ought' cannot be here implied, we have then indeed a purely psychological proposition,¹ the mere statement of the existence of a certain desire or volition; but, as we have already seen, such a one will not afford us any aid in our endeavour to prove the first principle of Utilitarianism.

Newnham College, Cambridge.

M. MARTIN.

DEFINITION OF REASON.

THE three methods by which Reason, like Sensation, may be best defined are analysis, discrimination, contrast; and it will be convenient, in handling the term, to follow the order that is here laid down. The allied group is *Reason, Reflection, Judgment, Reasoning*; and the contrasting words—*Sense, Passion, Instinct, Faith*.

I. Reason (A.-S. Understanding)² has often been regarded as the power or faculty of the mind that apprehends Truth. But objection may be taken to this on the score of vagueness: for *every* faculty, in the ultimate analysis, has truth (some truth) for its object, and Reason vanishes into thin air if we assign to it the province of truth in the abstract.

Sometimes its function is limited to the apprehension of truths self-evident or intuitive; and self-evidence is said to attach to first principles and to simple ideas—such principles, that is, as command our assent without our being able to assign a reason for it, and such ideas as cannot be resolved into others more simple or more fundamental. For an explanation of this usage, we must go back to the Greek *voûs*. And yet the Ciceronian Latin for *voûs* is not *ratio* but

¹ We should perhaps note here that there is a sense in which this proposition may still be regarded as ethical, though it is a sense which Mr. Gurney has not brought under discussion, namely, when it is employed to express the reasonable choice of my happiness as a whole—of my maximum happiness—as contrasted with my actual desires for enjoyments of the moment which may conflict with the attainment of the maximum happiness.

² The two are properly synonymous; but, so long as mental phenomena were classified as Understanding and Will, Understanding had a considerably wider sense than Reason, and it is significant that Locke's *Essay concerning Human Understanding* covers the whole province of Mind.

mens, and Boëthius's¹ translation is *intelligentia* or *intellectus*.² *Intellectus* also, in Boëthius, represents *νόημα*, and, in the plural (*intellectus*) *νοήματα* (see his *De Interpretatione*, *passim*); while a distinction is drawn, in the *De Consolatione Philosophiæ*, between *Ratio* and *Intelligentia*. The former is human and discursive, the latter intuitive and divine; and, in Lib. IV., pr. 6, *Ratiocinatio* (a function of Reason) is represented as standing to *Intellectus* in the relation of the variable and progressive to the permanent and constant. Elsewhere (V., 4), he arranges the mental faculties in an ascending order thus—*sensus*, *imaginatio*, *ratio*, *intelligentia*. Nor does Boëthius stand alone. All along, throughout the middle ages, a special dignity attaches to *Intellectus* over *Ratio*; and, even with ourselves, such a phrase as "Intellectual controversies" or "an intellectual system" has a particularly imposing sound. Thus, the leading term in St. Anselm's famous ontological argument for the existence of God (in the *Proslogion*) is just this word *Intellectus*; and it is through the Intellect, according to Aquinas, that man ascends to God in prayer. Indeed, *Ratio* in Scholastic Latinity is quite overshadowed by *Intellectus*; and, if we except such a passage as that from Augustine quoted in *MIND* XXVI., 306 (a passage that is almost unique), the idea of a noetic Reason must be regarded as emphatically modern. Hamilton refers it to Crusius and Kant; but the English antithesis of "Reason discursive or intuitive" is Milton's. Yet, it is this *noetic* sense of the term that is avowedly accepted by intuitionist philosophers of the present day, and that plays such a conspicuous part in intuitionist Ethics. Nowhere, however, so far as we are aware, is the application strictly or consistently adhered to. On the contrary, though placed as the keynote at the opening of the exposition, it soon disappears as the argument proceeds, and other significations more prolific of results, adroitly handled and at first surreptitiously introduced, come by and by to supersede it, until at last the transition grows sufficiently apparent in the repeated

¹ It may be mentioned, in justification of the prominence given to Boëthius in these Notes, whenever a point of history is concerned, that three princes ruled in mediæval and scholastic times—Boëthius (translator of Aristotle and commentator on Porphyry) in the realm of Philosophy, Virgil in Literature, and Augustine in Theology.

² A certain historical interest attaches to the fact, that the favourite Vulgate rendering of *νοῦς* in the N. T. is *sensus*: even *νοῦς Κυρίου* is *sensus Domini*. Sometimes also *mens* is employed as a synonym, but only once in N. T. (*viz.*, *Apoc.* xiii. 18) do we find *intellectus*; although *intellectus* in one passage (*Eph.* iv. 18) is translated *διάνοια*, and *νόημα* is represented both by *intellectus* and by *intelligentia*. *Λόγος*, on the other hand, which is the proper Greek for *ratio* (as well as for *oratio*), finds its Vulgate equivalent in either of the two words *verbum* or *sermo*. It is translated *ratio* only in the signification *reckoning* (*computatio*), or when it is employed in the phrase "reddere rationem" (to give account). *Rationabilis*, however,—a Boëthian adjective also, but remounting to Seneca—is the Vulgate's translation of *λογικός*.

occurrence of such phrases as—"the *cool judgment* of reason," "the dictates of mere reason *being slow and deliberate*," "the *decisions* of reason". This is the sense that the term bears in the Scottish philosophy, when Reason is regarded as a synonym for Common Sense; for Reid informs us (*Works*, p. 425*b*), "judging of things self-evident is the province, and the sole province, of Common Sense". Nevertheless, Hamilton found it necessary to enter a protest. "The term Reason," says he (*ib.*, p. 769*a*), "is of so general and ambiguous an import, that its employment in so determinate a meaning as a synonym of Common Sense ought to be avoided." The advice is unquestionably sound, but the grounds on which it rests are somewhat curious. One might almost suspect a touch of irony in the expression "so determinate": for, in Note A alone, Hamilton himself employs Common Sense in some half dozen different significations. He applies it to a "doctrine," to a "philosophy," to an "argument". At one time he puts it for "the complement of those cognitions and convictions which we receive from nature"—which he also identifies with the data of consciousness; at another time he represents it as an original source or origin of knowledge—"a fountain of truths intelligible". So determinate, indeed!

Both the above meanings are combined, and a third is added in the definition of Stewart. Reason, according to him, not only distinguishes truth from falsehood, and right from wrong, but also enables us to combine means for the attainment of ends. There can be little question that this third or added element has come to us through the Greek. It is the Greek λόγος, in its sense of *ordering* or *arranging*, and is characteristic of the wise man or σοφός. But the adaptation of means to ends is a complex, not a simple, affair, and often involves a great many different processes, each of which is indeed rational or intellectual, but neither of which can justly monopolise the name. Thus, it implies (does it not?) a preconceived plan, and, in so far as it does so, is a species of Conception. In so far, again, as it manifests knowledge of the properties of the things used as means and the nature or effect of their action, it is intelligence or understanding. In so far as it signifies forethought or prevision, it is shrewdness or sagacity. It further involves choice or selection, and is thus (in Kantian phraseology) teleological judgment: and, when practical or ethical relations are implicated, it is Prudence. The heterogeneousness of Stewart's collection reminds us of Cicero in the *De Officiis* (i., 4): "homo autem quod rationis est particeps, per quam consequentia cernit, causas rerum videt, earumque progressus, et quasi antecessiones non ignorat, similitudines comparat, et rebus praesentibus adjungit atque annectit futuras: facile totius vitae cursum videt, ad eamque degendam praeparat res necessarias," etc. Or, it recalls Cousin:—"It is reason which gives us this threefold knowledge [*viz.*, of our own existence, of the external world, and of God] on the same authority with that of the slightest cognition which we possess; reason, the sole faculty of all knowing, the only principle of certainty, the exclusive standard of the True and the False, of good and evil,

which alone can perceive its own mistakes, correct itself when it is deceived, restore itself when in error, call itself to account, and pronounce upon itself the sentence of acquittal or of condemnation" (Henry's transl.).

In the philosophy of Kant (which may be taken as a type of the transcendental), Reason is distinguished from Understanding—and this in a twofold manner. The latter has its Categories or Conceptions, and deals only with the relative and sensible—the particular and contingent: the sphere of the former is the absolute and supersensible; its objects are Ideas, and the truth attained is necessary and universal—cognitions *a priori*. With Kant, again, Reason is either Theoretical or Practical: and the Practical has reference to the Will—the Will as self-determining and autonomous; or, to express it in English form, it is the faculty of Conscience. The object of the Practical Reason is truth when it has become not only universal or "objective" but also *imperative*: in other words, it is the function of Conscience to deal with the ought, the obligatory, the morally binding, and to issue peremptory orders or commands.

Perhaps the best and least ambiguous application of the word is when it is taken for the whole of the intellectual part of man's nature—that part whose fundamental property is Comparison: and then we have to distinguish it from Feeling, on the one hand, and, on the other hand, from Will. As thus conceived, it is one of the three divisions which in their totality do duty for a definition of Mind; and, if we state it as a faculty, it is the faculty of Thought, Cognition, Intellect. In calling it Thought, however, we must guard against the wide Hegelian sense of that term, and also against the signification attached to it by Descartes. Thought, with Hegel, stands for something objective and unconscious (like the Schopenhauerian Will)—"The inwardness, or, as it were, the kernel of the world" (Wallace, *The Logic of Hegel*, p. xxxviii). But to speak of an "objective" thought in this way, is, obviously, to abuse language: for, although there are indeed "subconscious" mental activities—activities that underlie consciousness and operate beyond its range—we are not at liberty to call them "thoughts". Neither can we so denominate the "stream of tendency" that is in the world, whereby man's plans and purposes are often made to turn out quite differently from what he himself anticipated or intended. Even when this stream of tendency is a "power that makes for righteousness," if it be unconscious and impersonal, it is not in any proper sense Thought; whereas if it be personal and conscious, it had better go by the theistic name of an overruling Providence.

It is only another aspect of the same abuse when Hegelians say (see Principal Caird's *Introduction to the Philosophy of Religion, passim*)—"Reason is the form of an infinite content". Perhaps, logically regarded, this is rather a statement respecting Reason than a definition of it; but, be the proposition verbal or real, it is liable to the foregoing objection—it cannot be truly affirmed of the psychologist's Reason. Moreover, the description seems a contradiction in terms.

The word "form," even in its most attenuated sense, means *limitation*: and a limited unlimited is, to say the least of it, paradoxical.

In like manner, Reason is not identical with Thought as used in the broad Cartesian sense of Mind. "A thinking being," says Descartes (*Meditation* ii., Veitch's transl.), "is a thing that doubts, understands, [conceives], affirms, denies, wills, refuses, that imagines also, and perceives": and, in *Meditation* iii., he regards as thoughts, not only ideas (representations, "images of things"), but also "volitions, affections, and judgments".

Well then, the fundamental property of Reason, as we have said, is Comparison—otherwise denominated Difference and Agreement. But there is a rational element also in Feeling and in Will, and discrimination is the universal condition of consciousness. How then shall we distinguish Reason (Thought, Cognition, Intellect), from Will and Feeling? Thus. The characteristics of Feeling are pain and pleasure: in other words, a mental fact, in so far as it is pleasurable or painful, is regarded as a feeling. Activity, on the other hand, is the essence of Will: our determinations and volitions have always a reference to action—ethically viewed, they affect conduct, they point to practice. Reason is different from both, though not of course independent of either; and the functions of Intellect are sufficiently evident when marked off from those of the other two. Each department has its own sphere, and each is connected with its own special sciences. The sciences that attach themselves to Will are mainly Ethics and Politics. Metaphysics (including Ontology) and Psychology are the eminently theoretical or rational sciences. The science of *Æsthetics* belongs to Feeling.

Of Reason, regarded thus as a synonym for Intellect, there is a variety of modes or manifestations, and not unfrequently the generic name is applied to one or other of these; thereby creating no small confusion. This necessitates recourse to the second of our defining methods—that which deals with subtle differences or shades of meaning.

II. The first of the allied terms is Reflection: but the chief meanings of this word have been already given (see MIND XXIV., p. 557), and so we shall content ourselves with a simple reference here. The only further signification that needs to be noted is that of contemplation or meditation—where the idea of pensiveness is prominent, and in which the mind is in great measure passive and quiescent.

Reasoning and Judgment come next. Both these processes agree in being discursive; but, while Judgment is the comparison of objects and the affirming or denying of some relation between them, Reasoning (*ratio-cinatio*, λογισμός, τὸ λογιστικόν) deals with judgments themselves, and from given judgments draws the fitting conclusion. There is indeed a sense in which judgment is properly and strictly reasoning; *viz.*, when it is not confined to the simple affirming or denying of some relation between two things compared (the function of the copula of the logical proposition), but when it stands for a decision or

determination of the mind consequent on deliberation, argumentation, weighing of evidence. In this signification, the fact is sometimes best expressed by such terms as—decision, opinion, belief; and often, it is more proper to say *we pass a judgment*, than simply *we judge*.¹ There is, further, a *psychological* application when the simple understanding or comprehension of a statement (no assent or dissent being involved) is said to be a judgment: in which case “a judgment is possible even when *the two terms are contradictory*,” as in the proposition “a circle is a square”.

Again, Reason is not unfrequently distinguished from Experience. This is quite common in the writings of Hume, and it pervades English literature in general. Reason here stands for deduction, theorising, *a priori* reasoning; while Experience is *a posteriori*, and is regarded as confirmatory and supplementary. Compare, in this connexion, the Butlerian expressions—“the reason of the thing” and “the nature of the case”.

Once more, Reason is sometimes set forth as the special attribute of man, *i.e.*, when man is brought into comparison with the lower animals. But, until there is something like unanimity among authorities as to its meaning in this special contrast, we need not trouble ourselves much about it. Some will have it to be the power of adjusting means to ends—and this in the face of the known characteristics of the spider, the ant, the bee, and the beaver, to which we may add the foraminifer with its complicated shell of exquisite beauty and mathematical construction. Others, like Locke, lay stress upon Abstraction; others, on Speech or the λόγος προφορικός; others still, on Consciousness or Self-Consciousness²; and Prof. Max Müller has lately, in his *Hibbert Lectures*, emphasised the Religious faculty—a faculty that, according to him, is distinct from both Sense and Reason, which enables us to “apprehend the infinite,” and which, while the property of all men, is peculiar to man. Over against this have to be placed the results of recent anthropological investigations, and the tendency of modern speculation resting on an inductive and scientific basis—a tendency which is all in the direction pointed in the *De Natura Deorum* (III. 9), where there are ascribed to the ant, “non modo sensus, sed etiam mens, ratio, memoria”. Any way, the meaning is in the highest degree shifty and uncertain, and is more suitable for rhetorical purposes than conducive to precise thinking.

¹ Bailey, in his *Letters on the Philosophy of the Human Mind*, 1st series, pp. 79-81, proposes to restrict the term to one species of the belief that results from evidence. “So limited,” he says, “it would express the effect of evidence on the mind, or an inference in contingent [probable] reasoning; but it might with great advantage be separated from these synonyms, and appropriated chiefly if not exclusively to signify a particular class of conclusions, namely, those formed from *conflicting* evidence—the principal function of our courts of law.”

² This is Ferrier's meaning when he says (*Lectures and Remains*, II., 108), that Instinct is “unconscious reason”; for consciousness with him means the notion of personality or reference to self.

III. It still remains to apply the Method of Contrast.

1. The first great antithesis is between Reason and Sense. In expressing it, we have a choice of alternatives. We may call it the contrast of the universal and the particular, or of the one and the many, or of the permanent and the fleeting. But whatever mode of expression we adopt, the thing intended is always one and the same, *viz.*, that it is the province of Reason to compare, abstract, and generalise; to mark agreements and differences, and to see the common in the manifold.

More than this, however, has sometimes been claimed. It has been said, for instance, that Reason is "the power which judges of the perceptions of the senses and contradicts their decisions". To which, it is sufficient to reply, that the senses do not *decide*; and what is contradicted (where contradiction there is) is the false inference or inferences so apt to be drawn from sense-impressions—as, *e.g.*, respecting the actual size of a distant object, or respecting the apparent movements of the heavens relatively to the earth. Reasoning and Reason are here confounded, and the part played by Experience, in the cases referred to, is ignored.

Again, it is said (Price, *Review of the Principal Questions in Morals*, Chap. i.) "the eye of sense is blunt. The conceptions of the imagination ["a faculty nearly allied to sense"] are rude and gross, falling *infinitely* short of that certainty, accuracy, universality, and clearness, which belong to *intellectual discernment*". Stript of the rhetorical and exaggerated language, this means that Intuition needs to be supplemented by other mental operations before we can have the highest degree of certainty and clearness, and that the universal is pre-eminently a product of the Reason. But if it is intended to signify, further, that the senses are originally arbitrary and deceptive, that is a Platonic error not to be countenanced; and the very writer, from whom the above sentence is extracted, can himself admit as much when it serves his purpose. For, farther on in the *Review*, we find him asserting that Intuition and Deduction are "found in various degrees—sometimes clear and perfect, and sometimes faint and obscure"; and, in Note E of the Appendix, when speaking of the external world, he gives utterance to this—"whatever difficulties may attend this subject, it is certain that the evidence of *sense* (like that of *memory*) will always maintain its authority".

Again, we are sometimes informed that sense is only a capacity, Reason is essentially active; or, put otherwise, that "sense consists in the obtruding of certain impressions upon us independently of our wills; but it cannot perceive what they are, or whence they are derived". This, so far as true, is only another way of expressing the characteristic already adduced; and, so far as it goes beyond this, it is not correct. "Independence of the will" is not a fact absolutely distinctive of Sense; for Reason too, in so far as it is the recognition of agreement or difference among objects, is equally independent; and if (for instance) on opening our eyes we cannot prevent the picture of an object being formed on the retina and the consequent sensation, no

more can we avoid perceiving the difference between—say, two different sensations or two different ideas, when once they come within the field of consciousness, or when our attention is aroused.

Reason, then, deals with the general, the universal; Sense with the individual and particular: and herein lies the whole point of the contrast.

2. A second antithesis is between Reason and Passion. This, however, need not detain us, as it is simply the contrast of the impulsive and the controlling powers of our being: the precipitate, the impassioned, the perturbed (*ὁρμη*), on the one hand—and, on the other hand, the calm, the deliberate, the dispassionate, the regulative, the restraining (*ὁρθὸς λόγος, τὸ ἡγεμονικόν, ratio recta*). Cicero calls it—Thought and Appetite; and in the *De Officiis* (i., 36), he expresses it thus:—"Motus autem animorum duplex est; alteri cogitationis, alteri appetitus. Cogitatio in vero exquirendo maxime versatur: appetitus impellit ad agendum. Curandum est igitur, ut cogitatione ad res quam optimas utamur: appetitum rationi obedientem præbeamus."

3. Reason and Instinct give us the third opposition: the meaning of which depends in great measure on what we understand by Instinct.

In the first place, there is a very wide sense of the word, in which it is extended to living beings in general—to plants as well as to animals; and then it is said that instinct is nothing more or nothing higher, even in man, than that unerring action whereby a seed, if cast into the ground with the budding end downwards, invariably curves round as it grows so as to assume the upward direction and reach the air and light; whereas the root-end, if pointed upwards, as invariably curves round in the opposite direction, retreating from the light and embedding itself in the earth and darkness. But this meaning is, obviously, impracticable for psychological purposes, and, before we can get a workable psychological conception, we need to narrow considerably. A narrower signification, accordingly, is found—say, in Dugald Stewart. Stewart divides principles of action into two classes—the Instinctive and the Rational; and, under the former, he includes Appetites, Desires, Affections, and, under the latter, Self-love and Benevolence or Conscience. This too seems to be Butler's division; for, again and again in the *Sermons*, he groups Appetites, Passions (= Stewart's Desires), and Affections on one side, and on the other—"Reasonable Self-love and Conscience".¹ But even this is too wide. For there is clearly no propriety in calling the Desires instincts, much less in applying that name to the Affections (Emotions). With equal justice might we call Reason itself an instinct, or speak of an instinctive will. That there is an instinctive element in one and all of these,

¹ It is observable that, notwithstanding Butler's vigorous protest against making benevolence the sum of virtue, he frequently identifies conscience (as above) with the principle of benevolence; and, in one place in the *Sermons*, he calls the object of self-love "happiness," and that of benevolence "virtue".

is quite true—something constitutional on which they repose ; but so much the greater need, on that account, of precision and exactness in marking the characteristic differences, and in carefully avoiding a confused classification.

What then, shall we say, characterises an Instinct—so that we may sufficiently mark it off from other things nearly akin, yet different? Dr. Bain says, "Instinct is untaught ability" (*Mental and Moral Science*, Bk. I., c. IV.); more fully (*Senses and Intellect*, 3rd edition, p. 246) "the *untaught* ability to perform actions of all kinds, and more especially such as are necessary or useful to the animal"—the name "for what is primitive or primordial on the active side of our nature". And this, no doubt, is true ; but scarcely the whole truth. Hamilton defines (*Reid's Works*, p. 761a)—"an Instinct is an agent which performs blindly and ignorantly a work of intelligence and knowledge". The word "agent" is peculiar here ; but we may understand by it what Dr. Bain designates above "the active side of our nature," and then it has intelligible meaning : and the addition of "blind and ignorant performance" is indeed important ; for a leading trait of instincts is that they are marked by the absence of conscious purpose (not necessarily of consciousness), so far as the individual is concerned. But is there not a third element that ought to be included, and has not Paley rightly characterised it in the word "propensity"? "An instinct," says he (*Natural Theology*, ch. xviii., "is a propensity prior to experience, and independent of instruction". If so, then the three defining features are—untaught ability, untaught propensity, unconscious purpose ;¹ by these is Instinct distinguished from its nearest ally Habit, and by these is it demarcated from Reason. Habit is the product of tuition and experience ; and, although when fixed and formed it carries along with it a propensity to act, still this propensity is not untaught ; and although it is of the nature of a habit to grow mechanical, it may nevertheless be questioned whether any habit, formed within the experience of the individual, is ever so mechanical as that it cannot to a certain extent be brought within the individual's conscious control. Thus is habit psychologically distinct from instinct : and the distinction would remain for the individual even were it proved, with Lewes (*Problems of Life and Mind*, I, 141), that instinct is "*lapsed or undiscursive Intelligence*—the fixed action of an acquired organisation, transmitted from ancestors who acquired it through Adaptation, whereby what was facultative became fixed, what was voluntary became involuntary".

But Instinct, by the three foregoing characteristics, is also sufficiently marked off from Reason. It is opposed to Reason when we take this last word in the sense of Reasoning ; for in *instinctive* action there is neither deliberation nor inference. But it is further opposed to it when we accept Reason as the equivalent of Thought,

¹ Others are sometimes added—such as, unconsciousness, involuntariness, unerringness : but not one of them is thoroughgoing. See Darwin, *Origin of Species*, ch. viii.

Cognition, Intellect. Being a primordial propensity, Instinct is not based upon comparison, but operates spontaneously and instantaneously; and being confined, for the most part, to the *active* side of our nature, it allies itself with Volition, rather than with Reason, or with any other mental operation whatever.

Another meaning, however, is sometimes given to the contrast—to the contrast, I mean, between Reason and Instinct. The one, it is said, is the higher, and the other the lower; and moral worth attaches to the first and not to the second. Frequently we hear it said—"the virtue of an agent is always *less* in proportion to the degree in which natural temper and propensities fall in with his actions, instinctive principles operate, and rational reflection on what is right to be done is wanting". There is, no doubt, truth in this. Virtue is essentially moral strength, and presupposes the antagonism of different forces in our nature. It could have no meaning apart from temptation on the one hand, and resistance on the other. It is heroic action; and because it *costs* us something, because it demands effort and a sacrifice on our part, we admire and praise it. Hence we say, it is higher than action that is simply impulsive or instinctive. But the antithesis, as thus interpreted, is valuable only in Ethics. It is ethical truth which we dare not ignore, which is accepted alike by Intuitionists and their opponents; though how far it is compatible with the theory of an *instinctive* moral sense, or moral faculty, is a different question.

4. The fourth and last antithesis is between Reason and Faith; but it scarcely concerns us here. So far as faith is a lazy docile acquiescence in what comes to us stamped with authority—so far as it arises from mental indolence or from unwillingness to think, investigate, and prove—so far as it is a blind or unintelligent adherence to a master's *ipse dixit*—it is essentially antiphilosophical. Doubt, since the days of Descartes, has been acknowledged to be the beginning of philosophy; or rather, let us say, it is the first fruit of an awakened and rational curiosity. When, on the other hand, Faith stands for humble acceptance of truths that lie beyond the grasp of human Reason—truths vouched for by Divine revelation, it is a religious quality, and the consideration of it belongs strictly to Theology.

WILLIAM L. DAVIDSON.

THE ACTION OF SO-CALLED MOTIVES.

MR. SETH in his *Development from Kant to Hegel* (reviewed in MIND XXVII.), after remarking against Kant's theory of 'intelligible freedom' that "in separating the *man* from his 'character'—intelligible or phenomenal—an unwarrantable abstraction is involved," goes on (p. 105 n.) to say—

"Kant seems to be in quest of the phantasmal freedom which is supposed to consist in the absence of determination by motives. The error of the Determinists from which this idea is the recoil, involves an equal

abstraction of the man from his thoughts, and interprets the relation between the two as an instance of the mechanical causality which exists between two things in nature. The point to be grasped in the controversy is that a man and his motives are one, and that, consequently, he is in every instance self-determined."

A somewhat similar view as regards (at least the language of) Determinism was expressed by me, some nine or ten years ago, in a short unpublished paper read (as a text for discussion) before the now defunct Metaphysical Society; and as the position there taken up seems to me still worth insisting on, whether as regards the special question or in the more general reference opened out at the close, I will venture to submit to the readers of *MIND* the paper in its original form (though if I were writing now I would alter some expressions).¹ It ran as follows:—

When a man wills, it is common to say that he acts under some motive or motives. The expression, like other popular sayings about mind, has an objective or materialistic implication. As one ball may be motive, or the motor, of another, so a man is supposed to be put in motion, or determined to act, by something other than himself. Not that even in the common apprehension a distinction is not made between the moving of a man and the moving of a ball: a man is often seen to act, as it is said, of himself or of his own motion; when there is a motive supplied from without, this need not be a thing thought of as in any way moved; and any such motive is plainly seen to have its effect conditioned by the nature of a man in a fashion to which the inertia of a ball furnishes only the faintest analogy. But yet the general analogy is understood to hold, and very many cases of human volition admit of being described according to it well enough for all practical purposes. It provides a kind of reason for the uniformity and constancy which men find, and are most interested to find, in the acts of their fellows. The variety and inconstancy also found, people deal with in practice as they best can, and do not pretend to explain.

The expression, however, has farther been drawn into the scientific or philosophic theory of will, being assumed alike by the determinist and the indeterminist for their opposite readings of the psychological process of volition. These theorists have in dispute between them what seems a strictly philosophical issue, and the only one involved in the secular question as to free-will. The determinist, or, to use Priestley's word, the necessarian, declares that volition is always wholly determined by motives,—that in some motive or motives the sufficient reason, or efficient cause, of every voluntary act is contained. On the other hand, the indeterminist contends that there is also the ego or will itself to be reckoned with; the ego may pass into action without motive, and with motives present is always called, if proceeding rationally, to decide which among the motives should be yielded to. The consciousness of such a power of self-determination, either absolute or with reference to some particular motive which thus acquires an efficacy not its own, is the point perhaps most strongly urged by the indeterminist. It is replied by the other that the rational

¹ In one or two sentences of the last paragraph but one, the thought resembles that to which Mr. Spencer had already given expression in the *Principles of Psychology* (I. § 219), published a year or two before, but I was not aware of this at the time.

choice or supposed self-determination is only the coming into play of some other motive.

Looking at the two theories from without, I cannot but think that the determinist, with his causation by motives, fails to take due account of the subject that is determined. Call motive to a particular action some present or represented feeling which the action will in the one case sustain or in the other bring on, and, in yielding to the motive or in its determining to the act, what is that which yields or is determined? Whether named subject, mind, ego, or will, it must be supposed something with a nature of its own, through which it will co-operate with the motive towards the resulting act; and this doubtless is what the indeterminist has in view, when he urges his counter-theory. But is the counter-theory, as it is expressed, less open to criticism? Hardly; for the terms employed to express the relation between the feeling and the act are in truth equally applicable to that which comes of the co-operation of the mind or ego. If the feeling is in any strict sense a motive to the act, the so-called rational determination, through which, let us suppose, the feeling is overcome and the particular act is deliberately repressed, can perfectly well be ascribed to the intervention of other motives. The determination, being rational, has its grounds; nor would it be without motive, even though it sprang from mere caprice. This a clear-headed thinker like Hamilton, himself no necessarian, is not only constrained to allow, but forward to assert against such an advocate for free-will, not clear-headed, as Reid, and accordingly he finds the moral liberty of the indeterminist wholly inconceivable. It is true that nevertheless he is able for himself to accept it as a fact upon the direct testimony of consciousness.

From the presence of such difficulty in each of the theories it would be wrong to infer that their antagonism is more apparent than real—more real and profound it could not be; but we may suspect that for one or for the other the difficulty arises from a defect in the language employed by both, and with a different statement would vanish. Such defect appears to lie in the word "motive," which may have a serviceable application in the popular view of man and the world, but has no scientific, which is to say here psychological, value whatever. In the common apprehension, a man is an object among objects, acted upon by and reacting upon them, and only irregularly or vaguely is any account taken of the subjective conditions under which the reaction, when voluntary, takes place. Language, as begotten of common needs, follows suit, and consistently enough, at least for practice, speaks of a man as acting under motives, or of motives as influencing a man. Very naturally, then, when there is a beginning made of psychology, and mental states as such have to be considered, is the popular expression diverted from its original and proper reference to man as a physical object, and employed with a reference to mind, or still more specially to will, as if the mental states had a separate subsistence therefrom. But however natural, surely this is a most improper transference. In no strict sense can the feeling to sustain or bring on which an act is performed, be called a motive to that act as a psychological state. The feeling and the willing of the act are two successive moments in consciousness, and that seems the whole psychological statement of the case. Or, to be more particular, if the act is willed directly upon the feeling (present or represented) being had, that can only mean that a representation of action associated with the feeling becomes actualised, or passes into action present. If, on the other hand, it happens that, in spite of the feeling, the act is not willed, but either it is willed that the act be not done, or something else is willed, or there arises a state of mental suspense,—that can only mean that some other feelings and ideas have supervened in

consciousness, and have acted themselves out or not, as the case may be. But from this point of view there is no more any question of an ego to be reckoned with for explanation of the volition. No doubt reference to a mind, ego or will, apart from the particular conscious states, is still possible, and not only possible, but under the conditions of language inevitable, for conscious state must be held to imply something of which it is the state, as much as motive implies something that is moved. Here, however, the reference is one of mere expression, which leaves the psychological explanation unaffected. While the correlate of a motive is truly a distinct thing objectively, to be separately allowed for, it is quite otherwise with the ego or mind, and *a fortiori* the will, spoken of as the subject of particular conscious states. A feeling which is a state of the ego, is the ego in a certain state, and not less the ego because the state at the particular moment might conceivably have been a different one, and does, in fact, the next moment give place to one that is different. Or, if a conscious state is not that, what is it? Now, with no ego left that can modify the succession of states as they emerge, to discover the psychological law of the succession is to give all the explanation that is possible of volition. The matter would then stand thus:—If so-called motives are not understood as definite mental states, they are of no account for the psychological explanation of will, and any theory of their action, deterministic or indeterministic, is unphilosophical. If they are so understood, they should in psychology be so expressed, and the theory of indeterminism, or more properly the doctrine of free-will, becomes untenable. It is tenable only if an ego can be found which is not an ego already determinate; but such an ego, though it may be logically distinguished and verbally expressed, is not a real factor in psychology.

The argument has this moral: that, if mental philosophy must use a language devised for purposes other than philosophical, it cannot be too careful about the inferences it founds upon the words. Even the objective sciences, as they advance, drift farther and farther away from the use of popular expressions, and beget a technical language of their own. Psychology only, though as subjective science it can least of all be served by common speech, developed as that has been with an almost exclusively objective regard, tries to work without such technical aid. This is not surprising, because, if it were sought to devise an appropriate and perfectly consistent language for the results of psychological analysis, it would differ so profoundly from common speech as to be unintelligible, even in its principle, to all but adepts; whereas in other sciences, however abstract, at least the principle is perfectly intelligible to people in general, and in most of them the difference is only one of greater constancy and precision in the use of the verbal or written signs employed. But the consequence is that, while popular conceptions and misconceptions do not gain a footing in the objective sciences or can be easily extruded if they do, mental philosophy has always been more or less tinged by an admixture of popular opinion, not rendered more philosophic by being refined upon. There have been writers of no small repute who never could place themselves at the philosophical point of view, and there are no thinkers who, when it comes to expression, do not find it difficult or even impossible to maintain consistently the philosophical attitude. With language what it is, this must always remain so; but the greater is the need to signalise the difficulty and the danger.

EDITOR.

DR. C. VIGUIER ON "SENSE OF DIRECTION".

AN important article "On the Sense of Orientation and its Organs in Man and Animals," in the July number of the *Revue Philosophique* (pp. 1-36),¹ by Dr. C. Viguiier, writing from Algiers, advances a subject which was previously noticed in *MIND*, on occasion of M. Cyon's thesis on the functions of the Semicircular Canals (XII. 559) and otherwise. Dr. Viguiier gives first a remarkably careful review of the different suppositions that have been put forward to account for the well-attested feats of dogs and other animals, also of human beings chiefly savage, in finding their way back to particular spots; and then expounds his own view (formed independently but anticipated in general terms by one or two anonymous writers) that the only adequate explanation is to be found in the hypothesis of a special mode of unconscious sensation excited by the earth's magnetic currents. In particular he seeks to show (against the general objections urged by Darwin and another writer in *Nature*) how such a mode of sensibility might supply all the data necessary for determining direction. Still further he aims at giving scientific definiteness to the hypothesis by contending that in the semicircular canals, as investigated after others by Cyon and later by Spamer (*Pflüger's Archiv*, 1880, p. 585), the precise kind of specialised organ that ought to be assignable in the case is supplied. No attempt is here made to give the steps of his argument towards this conclusion, but it is one deserving of all attention. The article closes with an indication of the kind of experiments which, in Dr. Viguiier's view, might be carried out upon pigeons (though these are not remarkable for special "sense of direction") and other animals, for verification or rejection of the hypothesis. He has been forced to publish his research in the tentative form, from want of means to carry out the experiments by himself. Among his other suggestions, he calls for experiments on deaf-mutes; apparently not knowing that Prof. Wm. James (as noted in *MIND* XXIII., 412) is already at work on this line.

EDITOR.

¹ The article has since been printed also separately (Paris, Germer Baillière).

VI.—CRITICAL NOTICES.

The Science of Ethics. By LESLIE STEPHEN. London: Smith, Elder & Co., 1882. Pp. xxviii., 462.

Mr. Stephen's book is an elaborate and important—though not, in my opinion, a thoroughly successful—attempt to “lay down an ethical doctrine in harmony with the doctrine of evolution”. Its merits and defects combine to render it a difficult book to review: as its chief merit appears to me to be its sustained vigorous thoughtfulness, its abundance of pertinent and pointed observations and reflections, to which it is impossible to do justice within the limits of a notice: while on the other hand I find it wanting in clearness of method and systematic arrangement, both as regards the conduct of particular arguments and the organisation of the whole set of discussions which it contains. These discussions are of three kinds: one portion of them belongs to subjective psychology, being concerned with an analysis—from the individual's point of view and mainly introspective—of the kind of consciousness that precedes and determines volition; another part is occupied with the development of positive morality regarded as a property of the social organism, and here the procedure is sociological observation and induction, aided largely by the deductive application of the Darwinian theory; while again the treatise also seems to aim at a result strictly ethical (in the narrower sense), at the systematic determination of an ideal code of morality. But what precisely the method of reasoning is by which this third result is attained, I find it difficult to say; especially since the treatment of this subject is made to run rather confusingly through the parts of the other discussions, like a thread of logically alien texture. Again, there seems a certain awkwardness in the arrangement by which (as we shall see) the sociological part of the treatise is interpolated between two discussions that belong to subjective psychology; and the ascertainment and analysis of the facts of the ordinary moral consciousness as at present existing are hardly enough distinguished from the history—necessarily somewhat hypothetical—of the manner in which it has been developed.

These sources of confusion and perplexity I will try to indicate more fully as I proceed; they do not, I think, detract materially from the interest of the work.

Mr. Stephen's problem, as he originally states it, is “to discover the scientific form of morality . . . the general characteristic, so far as science can grasp it, of the moral sentiments” . . . the part they “play in the general system of human society”. He begins by an account of human motives generally, considered from the subjective point of view. All human conduct is determined by feelings; and this, according to Mr. Stephen, is equivalent to saying that it is determined by pleasure and pain. The ethical importance of this

proposition is, however, less than at first appears: since Mr. Stephen does not mean that when a man chooses between two alternatives of conduct the consequences of the course that he chooses are always represented at the moment of choice as more pleasant or less painful than the consequences of the course that he rejects. "No feeling can affect us except so far as it is felt"; that "the estimate of future pleasure does not always produce a corresponding pleasure . . . will be admitted on all hands"; and we find later on that the pleasures and pains of others are liable to affect us so much as to lead us to sacrifice knowingly our own happiness to theirs. Still, it is affirmed that "the will is always determined by the actual painfulness or pleasantness of the choice at the moment of choosing"; or, in a different phrase, "by the simple process of feeling one course to be the easiest," according to "the principle of least resistance".

I cannot accept this account; and the criticism that I shall make on it illustrates what Mr. Stephen elsewhere says of the lack of agreement on elementary points in psychology. In my view, the feelings that normally cause action are not pleasures and pains as such, but desires and aversions, which may be very strong without being definitely either pleasurable or painful; while, again, the desire of an intense pleasure may be a painful feeling, and the aversion to formidable pains, if not distinctly recognisable as itself a pleasure, is at any rate sometimes an indispensable element of a consciousness on the whole pleasurable—as in enterprises of which the charm depends upon their danger. It further appears to me that, while the satisfaction of a desire is always a pleasure, this pleasure is not necessarily or even normally the result which the desire moves the will to aim at; and that we often desire results which are not conceived as the pleasures (or relief from pains) either of ourselves or other sentient beings. In particular, the aversion normally accompanying the moral judgment that an act is wrong is not, in the main, aversion to the foreseen pain of remorse; nor is it, in many cases at least, aversion to the painful consequences of the wrong act to others;—aversion (*e.g.*) to untruth or injustice is often felt when the consequences of the act contemplated appear on the whole desirable. Mr. Stephen, as I understand him, is concerned to maintain that such moral judgments cannot, any more than any other operation of the intellect, move the will, apart from emotion. This seems to me rather a subtle psychological question; but at any rate I should say that in the case of moral judgments I am frequently not conscious of any emotion other than what is implied in the mere consciousness that the judgment carries with it a motive. And it is, I suppose, this consciousness, in cases where we feel some powerful emotion prompting in an opposite direction, that has led to the phrase "conflict of reason with passion" to which Mr. Stephen objects. In his view, what is called the government of passion by reason is simply the effect of represented [non-rational] emotion, or symbols of emotion operative through habit and association—"latent emotion" being converted into actual so far as is needed for the resistance of passion. Intellectual development

of course influences emotion so far as it is accompanied by the development of new sensibilities; and influences volition so far as it leads to the more accurate representation of facts—including among facts the agent's future feelings: in this way it tends to reduce vagaries and caprices and give continuity and consistency to the conduct. Though, as Mr. Stephen subtly argues, the condition of logical consistency does not strictly enable us to condemn any feeling as unreasonable: since "there is always some cause for the wildest vagary or the most unreasonable prejudice," and "to give a merely formal consistency to my conduct it is sufficient that this cause should become a reason"; still, the development of reason does tend to bring about a certain harmony of action: "for, instead of allowing each impulse to operate exclusively in turn, it subjects each to the implicit and explicit control of the others". But "we may still ask, how is the relation between the different instincts determined? what settles the influence exerted by each member?" to which the only answer that he can give, from the point of view of subjective psychology, is that it will be settled by the balance of instincts which constitutes at the time the character of the individual; "we have so far no means of saying why one character should not be just as reasonable as another".

In all this Mr. Stephen seems to me, first, to ignore the psychological phenomenon of divergence which the play of represented and actual feelings continually causes between the resulting *judgment* as to what is right or best to do, and the resulting action,—the "*video meliora proboque deteriora sequor*". This is surely too important a fact to be overlooked in discussing the relation of reason and feeling even from a purely psychological point of view. And, secondly, his conclusion here seems to be inconsistent with what he afterwards says (c. vi., p. 254) as to the "only assignable rule of conduct"—sympathy apart—"prescribing action for a maximum of happiness": since it follows that when we find the balance of instincts in any individual leading to misery, and in another to happiness, the reason cannot but prefer the latter character. In short, I can see no good reason why the psychological discussion should be thus broken off here and taken up again in c. vi.: the transition effected to the sociological point of view, and the comparison of types of character by the standard of conduciveness to social wellbeing, appears to me sudden and forced.

However, let us pass to the sociological discussion. Here, as has been said, the general assumption is that natural selection tends to produce, in human character as in other departments of life, the type of maximum efficiency for life under given conditions: but the application of this principle to the particular case of human character is very carefully conducted, and forms, I think, the most interesting part of the treatise. We note first that evolution—in the case of man—is concerned with the vitality not of single individuals, as such, but of a class of beings that have to be continually reproduced and exist only in more or less organised societies. We may therefore distinguish, as susceptible of improvement by evolution, qualities tending to preserve (1) the individual, (2) the race, and (3) the organised community;

recognising that all are required and that any improvement in (1) accompanied by greater deterioration in (2) or (3) would not really be useful to the kind, and would not therefore be produced by natural selection. *Ceteris paribus*, any improvements in the efficiency of living individuals are of course useful to the kind, so far as they tend to be transmitted through physical propagation, and to the community, which is an aggregate of individuals though not a mere aggregate. But what we are specially concerned to observe is the important class of qualities which are not possessed by the individual through physical inheritance, requiring only interaction with his material environment for their development, but are acquired after birth through social intercourse.

To this class belong knowledge and all that is implied in language, skills and arts of all kinds, and, in particular, a moral code. An account of the changes that take place in these qualities gives us the life of human society as such: and history shows these changes to be vast, while the constitution of human individuals, as born, remains approximately constant: one of these changes being the growth of a recognised and formulated moral law. (Mr. Stephen, I think, goes beyond the evidence in assuming the physical similarity of the infants of pre-moral savages with civilised infants, since we know so little of the brains of either; but the point is not of fundamental importance.) We have then to ask how the general course of this social history is determined by the principle of natural selection. Here Mr. Stephen draws attention to a difficulty often overlooked in this kind of discussion. Man—at least civilised man—is not a member of one community but of many: we usually think of his “social organism” as a state; but members of different states may belong to the same industrial or ecclesiastical organisation, and members of the same state may belong to different clubs, companies, &c., each having its own corporate existence. Now which of these societies is the “unit upon which the process of evolution impinges”? If political communities were so separate in their lives that improvements could not be diffused from the one to the other, the unit of evolutionary improvement would be the nation: but in “any moderately civilised state of the world” this is not the case, as “war is then a comparatively subordinate phenomenon”; even when a conquest takes place, the conquered group is “not extirpated but incorporated”. Hence we must take as the unit in the struggle for existence, which “necessarily implies the supplanting of the weaker by the stronger,” what Mr. Stephen calls the *race*—how he defines it I do not quite understand—which forms what he prefers to call “social tissue”¹ rather than “organism”; since a race is not, as a state is, capable of combined action for a common end. “The unity which we attribute to it consists in this, that every individual is dependent upon his neighbours, and every modification arising in one part is capable of being propa-

¹ The relation of “race” and “tissue” seems, however, rather vaguely conceived; as Mr. Stephen afterwards speaks of different races as having identical tissue.

gated directly in every other part"; the organisation of such a tissue into different states not destroying its continuity. The effect of the competition for existence is of a mixed and complicated kind; it partly consists in different degrees of success in efforts to survive under material conditions without direct mutual struggle; so far as the latter comes in, it is no doubt possible that a large political community of inferior tissue may extirpate a superior though smaller nation; but, generally speaking, the "tendency is to the predominance of races having intrinsically the strongest tissue". We have then in considering the properties of social man to distinguish three kinds: (1) those he would equally have, if he had been transported as an infant into a different society; (2) those he has as a member of a certain social tissue; and (3) those he has as a member of a state or other special organ of human society. And since the dissolution of the states does not involve the destruction of the individuals composing them, we must take the social tissue as the "primary unit upon which the process of evolution impinges": we must understand the social evolution, which has produced among other things an explicit moral code, to mean the evolution of a strong social tissue.

What, then, is the exact place of morality in this process? When we speak of morality as a Law or Code, we mean that there are certain "organic customs" essential or useful to the society; which would not exist unless the mature members of the society generally had developed instincts of conformity to them, but which we may call a 'law' relatively to any particular individual, meaning that he is under "a pressure tending to enforce a correspondence between his actions or feelings and those of his neighbours"—the sanction of this law being "whatever consequences other than the legal ones result from imperfect harmony with his social medium". Morality, then, consists of the most important of these customs maintained, and habits or instincts generated, by social pressure in members of any social tissue generally—as distinct from the customs or habits belonging to any particular organ of this tissue. It contains "the essential conditions of the vitality of this tissue"—or rather the *actual* moral law must be "an approximate statement" of such essential conditions. It must be this, because "the process by which society has been developed implies that the most important characteristics developed in the individual by social pressure correspond approximately to the conditions of existence of the society".

Mr. Stephen's main distinctions, in the long analysis that I have briefly summarised, seem to me interesting and valuable in a general way; but I think that they are drawn somewhat too sharply for his special purpose, and, further, that he is hardly aware of the extreme vagueness of the only conclusion attainable by his method. In the first place, I should conjecture that the organisation in political communities must have had more importance than he attaches to it, at least in the earlier part of the evolution that he describes; *e.g.*, I should trace the prominence given to military valour in early estimates of human excellence to the struggle for existence between tribes before

war became a "comparatively subordinate phenomenon". And it is only in this earlier period that I can regard the natural selection of social "tissues" as a really important factor in the development of morality; I do not see, for instance, how any of the important changes that have taken place in the morality of civilised Europe during the last twenty centuries can be properly attributed to this cause. But secondly, accepting "social tissue" as the unit which the struggle for existence tends to improve, I think Mr. Stephen's conclusion that the actual morality of any society represents "approximately" the essential conditions of its existence is only admissible—as a mere deduction from the "evolution theory"—if we take "approximately" in a very loose sense. It might equally well be deduced from the same theory that the individual's organism was "approximately" adapted to its conditions of existence, and therefore that all men were always in approximately good health, with a balance of instincts that could be approximately trusted to lead to health-preserving conduct. And in a certain sense this would be true; but it is in the interval between the "approximation" and perfect adaptation that the whole art of medicine finds its field; and surely the moralist—whom Mr. Stephen afterwards compares to a physician—must be prepared for at least an equal hiatus between the customs actually enforced by praise and blame in any society and the truly "essential conditions of its social existence".

Mr. Stephen proceeds to explain from the same point of view the chief characteristics recognised as belonging to morality generally; and to exhibit the chief branches of duty or virtue—courage, temperance, truth, justice and benevolence—as essential conditions of social existence. The truth of his conclusions, broadly taken, no one is likely to gainsay; nor is he unsuccessful in explaining, in harmony with his general view, certain commonly recognised exceptions to particular rules—such as the rule of veracity. I think, however, that in this part of the treatise the mixture of methods which I before mentioned is a source of confusion: the view of morality at which Mr. Stephen arrives by direct analysis of existing moral sentiments, and effort to reduce them to a clear and consistent system, mingles itself perplexingly with the application of his sociological doctrine to the history of the growth: in consequence of which certain characteristics that explicitly belong only to morality in its latest stage are apparently thrown back into the earlier periods of its development. Thus the distinction between the "prudential" and the "moral" codes is given as though it were necessarily apprehended throughout the whole evolution; whereas it is only found in germ at so late a stage as that of Greek ethical reflection. Again, Mr. Stephen gives as an essential characteristic of morality proper its "internality": "the moral law has to be expressed in the form 'be this,' not in the form 'do this': it prescribes character primarily not conduct". Admitting the vast gain in general effectiveness that is obtained when morality advances from the mere regulation of outward actions to the regulation of feelings or dispositions—I still think Mr. Stephen's statement misleading

even as regards the latest stage of moral development; since there is an important class of virtues, such as (*e.g.*) veracity and justice, which, though I may regard them as qualities of character rather than conduct, I yet cannot definitely conceive except as tendencies to produce certain external effects. At any rate the primary effect of "social pressure" must be to produce outward conformity to the approved type of conduct. And this leads me to say that I desiderate, in this part of the treatise (cc. iv., v.), a more thorough and systematic analysis of the inner causes of moral development, the existence of which is necessarily presupposed in applying the theory of natural selection. It is perhaps from want of this analysis that Mr. Stephen sometimes falls, as I think, into the error of the older utilitarian school, in their historical explanations, of attributing the emergence of new moral approvals or disapprovals to conscious calculations of utility. For instance, the following explanation of asceticism is surely unhistorical: "The growth of a rich and powerful class . . . in which great men plunge themselves into sensuality with indifference to the sufferings of their dependents, suggests the doctrine that sensuality is the great enemy of mankind. . . . The best teachers see that the passions are strong enough to take care of themselves . . . and therefore they denounce [sensuality] unsparingly without supplying those qualifications which will be sufficiently supplied by the facts." Surely this calculated overcharging of the condemnation of sensuality is utterly alien to the temper of such men as those who, in any age or country, have led mankind in the direction of asceticism!

In the three following chapters (vi.-viii.) the psychological discussion of motives is taken up afresh. Taking the individual man now as a member of a society having a moral code, and taking morality, as distinct from prudence, to prescribe a character tending to act for the good of others, we have yet to ask (1) "what is the quality in respect of which the individual is susceptible to the social pressure, (2) what is the form taken by that pressure, and (3) what is the nature of the character that must be impressed on the individual". In answering the first of these questions, Mr. Stephen seems to me to ignore unduly the part played by what Mr. Spencer aptly distinguishes as the "ego-altruistic" sentiments, the fear of the disapprobation of one's fellows and pleasure in their approval: probably because he does not consider the external conformity produced by these feelings as properly deserving the name of morality. True "morality, taken as implying the existence of certain desires which have for their immediate objects the happiness of others," can only find a basis in distinctly altruistic sentiments: that is, in the sympathy by which an individual derives pleasure or pain from the mere representation of the pleasures and pains of others. Mr. Stephen draws attention to the necessary implication of sympathy in cognitive processes generally; knowledge even of a non-sentient object involves an implicit recognition of other consciousnesses to which it is objective, while knowledge of anything sentient more obviously includes representation of its feelings. But in saying that the "pain due to the pain of others is a direct and

necessary result of the very process of thinking about others" Mr. Stephen surely goes too far; since, as he himself recognises, if we think about others in a malevolent mood, we derive pleasure—up to a certain point—from a vivid representation of their pains; and, apart from malevolence, men often gain a purely pleasing excitement from the narrative of others' sufferings, and still more often cognise pain as an external fact without any perceptible emotion. Still it must be admitted that the intellectual representation of the feelings of others normally tends, if vivid, to be accompanied by some emotional sympathy with them: and therefore that conduct to a *certain extent* "altruistic"—promotive of the happiness of others—is natural on the part of such a being as man. But I am unable to follow the transition by which Mr. Stephen proceeds to argue that the complete subordination of self-interest to the interest of society is "reasonable"—thus, I may remark, taking up the snapped thread of the earlier chapter on motives. His argument is as follows:—

"To become reasonable . . . is to act on general principles, and to act consistently; and this, as I have said, includes the condition that a statement of the real cause of my actions should equally assign the reason for my actions. The law which my feelings actually follow must coincide with the principle which commends itself to my reason. In order, then, that a being provided with social instincts should act reasonably, it is necessary, not that he should take the course of conduct which gives the greatest chance of happiness [to himself], but that which gives the greatest chance of happiness to the organisation of which he forms a constituent part."

I have nothing to say against this ethical conclusion; but I cannot see the force of the reasoning by which it is reached. For no one's actions conform perfectly either to the prudential or to the social axiom; and yet, as Mr. Stephen has himself argued, the "real cause" of every one's actions is not therefore less intrinsically capable of being represented as its reason. It may be answered that the actual conduct of civilised man at any rate approximates more closely to the social than to the prudential axiom: but (1) this answer does not justify the inference above given, and (2) I hardly think that Mr. Stephen can consistently make it. He holds that the two axioms approximately coincide in the conduct that they prescribe: and so far as they diverge, so far as individuals have to choose between their own greatest happiness and that of the community, Mr. Stephen will hardly maintain that they actually more often sacrifice the former than the latter.

I return to the explanation of actual morality. Taking sympathy as the element of virtue, we observe, next, that virtue "implies more than simple altruism or benevolence," *viz.*, "the elaboration and regulation of the sympathetic character which takes place through the social factor". Through sympathy we not only seek the happiness of others, but also "catch the contagion of their complex sentiments": this, however, explains how individuals acquire moral sentiments rather than how these arise in a society. "If virtue

were identical with altruism we might identify moral approval with gratitude"; but as it is not, this approval requires explanation. In the explanation, however, that Mr. Stephen offers (in c. vii.) I find it hard to disentangle his exposition and justification of his own notion of merit from his account of the development of the ordinary notion: and yet the two conceptions do not seem to be identical. According to Mr. Stephen, a man "is meritorious, so far as he is so constituted as to obey the moral law unconditionally": but the ordinary notion of merit he defines as "the exchange value set upon virtue"; it varies, therefore, with the supply and demand of the latter, and carries with it a reference to an assumed average standard of "conduct"—there is a zero point of merit below which the moral law would be obeyed even by average persons without extrinsic motives. Again, in Mr. Stephen's view, the desire of others' praise must, I suppose, be classed as an extrinsic motive; but this does not seem to be the ordinary view as expounded by himself, since he expressly says that we only give praise to conduct with the view of stimulating it.

The greater part of this chapter, however, is occupied in clearing away certain fallacies which obscure the conception of merit, being, according to Mr. Stephen, distortions of its proper characteristics. Thus the fact that merit only attaches to actions as exhibiting character—exhibiting that is a disposition to choose actions socially beneficial apart from any extrinsic motive—is distorted into the supposed condition that merit involves free-will in the metaphysical sense; while, again, the relativity of the ordinary standard of merit has led to the erroneous doctrine that merit is proportioned to effort: the true view being that "the man is most meritorious who is virtuous with the least effort, provided always that he has the normal passions of a man". There is much that I should like to say in answer to Mr. Stephen's acute arguments in support of these conclusions; but I must pass to consider the yet more important question as to the nature of the "intrinsic motive for right doing". From Mr. Stephen's view of the essence of morality, it manifestly follows that actions may be virtuous although done without any conscious reference to a moral law; for if an individual enjoys such a balance of instincts as naturally impels him to acts preservative of his social tissue, he will do right, though he may never think of right and wrong as such. Still Mr. Stephen holds that an explicit recognition of the law is "the crown and final outcome of the moralised character"; so long as this is wanting "we are without the full guarantee for a regular observance of the moral law". But he is at the same time concerned to maintain (in c. viii.) that the faculty to which this recognition is commonly referred, under the name of conscience, is not "separate," "elementary," or "primitive". If we admit the gradual development of morality out of a pre-moral state of human existence, it follows that the faculty of moral cognition cannot be, in a historical sense, "primitive": but I can find no significance in the assertions that it is "separate" and "elementary," except so far as they import what seems to me a clear result of reflection—*viz.*, that the notions of right

and wrong, as peculiar to moral cognition, are unique and unanalysable. On the other hand, I should quite agree with Mr. Stephen's statement that "the law is given much more distinctly than the feeling by which it is enforced," understanding it to mean that the cognition or judgment of rightness and wrongness is more distinct than the accompanying emotions: but then it is the cognition especially that I regard as the manifestation of the moral faculty, which in its special application to the agent's own conduct we call conscience. The emotions attending this special application seem to me complex, variable, and difficult to analyse exhaustively. The sense of shame, to which Mr. Stephen calls attention, is doubtless one element of the emotions that generally attends a condemnatory judgment; but it is not universally present; and, as he points out, it is even more strongly excited by breaches of social decorum too trivial to be within the pale of morality, and when it attaches to breaches of the moral law is by no means proportioned to their magnitude. Again the contemplation of virtue produces æsthetic emotion, very intense and vivid in certain minds and under certain circumstances; and perhaps an ideally cultivated taste would derive most pleasure from the type of character most preservative of social tissue; but actually the play of this emotion diverges very much from this ideal—which is of less practical consequence since it is not an important element of the ordinary moral consciousness.

The emotion most essential to conscience, in Mr. Stephen's view, is a kind of "corporate sentiment" or feeling of "loyalty," which grows up normally towards any association of human beings and carries with it "a sense of obligation". The sentiment of duty "has the same relation to the social tissue as the various special sentiments corresponding to each organ or association have to the body to which they correspond"; and the narrower associations—especially that of the family—are a school in which the mind is trained for the wider sentiment. I do not quite understand what is meant by "having the same relation": that virtue tends unconditionally toward preservation of social tissue we have been already told; and Mr. Stephen does not mean that in the ordinary judgments of conscience this preservation is explicitly recognised as the ultimate end. Nor does the "sense of obligation" seem to be adequately explained when it is referred to the "perception that the rule is formed by something outside us, that we imbibe it from the medium in which we live"; since so long as we observe the rule merely as external, and not from an intrinsic motive, our action is not, in Mr. Stephen's view, properly moral.

In c. ix., Mr. Stephen passes definitely from psychology and sociology to ethics, and discusses the fundamental question of the criterion of morality. By this time the careful reader will have come to feel a certain curiosity as to the choice which the author means to make between the two ultimate ends and standards of moral conduct to which the two lines of reasoning conducted in the preceding chapters seem respectively to lead. As we have seen, from the point of view of subjective psychology he has arrived at the conclusion that it is

reasonable for the individual to aim at maximum general happiness ; while from the sociological point of view preservation of social tissue has throughout been presented as the end to which the whole development of positive morality is a means. Which of these, then, will he take as the ultimate end for a true or ideal morality—happiness or preservation ? Mr. Stephen fully recognises that he has to “justify morality both as happiness-giving and as life-preserving,” and that if the ends diverged he would “get into considerable difficulties” : but he thinks it sufficient to say that “the very principle of evolution implies that there must be at least an approximate coincidence, and there is no apparent *a priori* reason why the coincidence should not be indefinitely close”. I submit that, in the first place, this is much too short a cut to Optimism. The principle of evolution, as I understand it, decides nothing as to the issue between Optimism and Pessimism : Von Hartmann and Mr. Herbert Spencer may equally hold it. All it involves is that, when preservative and destructive actions are presented as alternatives, the preservative must be, generally speaking, the less painful : but whether life on the whole has a balance of inevitable pain is a question to which evolution has nothing to say. Now Mr. Stephen admits that if he were a pessimist, “if the preservation of the race meant a continuance of misery,” he could not reasonably take preservation as his criterion of morality ; hence, as he does practically choose the evolutionist criterion in preference to the utilitarian, his ethical system is logically bound to include an adequate confutation of Pessimism—which he has certainly not given us. And I would suggest that the real need of this proof has been partly concealed from the reader by Mr. Stephen’s continual use of the terms “social welfare,” “wellbeing,” and even “health,” instead of mere “preservation,” in speaking of his evolutionary criterion : since all these terms naturally imply that the existence preserved is a desirable existence.

But secondly, even supposing Pessimism confuted, the complete coincidence of conditions tending to general happiness with conditions tending to social preservation is very far from being made out ; since, so far as we know, of two social states which equally tend to be preserved, one may be indefinitely happier than the other. We may grant that in the early history of morality—when to live at all was a difficult task for human communities—the maintenance of preservative habits and sentiments was its most important function : but it is not therefore reasonable that we should permanently be content with the mere securing of existence for ourselves or for humanity generally, and should confine ourselves to efforts at making this security greater, instead of seeking to make the secured existence more desirable. Nor can I even grant that the criterion of “tendency to preservation of social tissue” is necessarily more easy to apply than that of “tendency to happiness,” even so far as the two ends are coincident ; still less that it “satisfies the conditions of a scientific criterion”. Were Sociology a science really constructed, this would doubtless be the case : but Mr. Stephen has himself told us—in

stronger language than I should have ventured to use—that sociology at present “consists of nothing more than a collection of unverified guesses and vague generalisations, disguised under a more or less pretentious apparatus of quasi-scientific terminology” (p. 10). If this be so, I submit that the practical superiority of the evolutionary to the utilitarian criterion, is not established even by the most vigorous exposition of the defects of the latter.

I quite admit the effectiveness of Mr. Stephen’s criticisms on the utilitarianism which treats society as a “simple combination of independent atoms of uniform and constant nature,” among whom “happiness is a kind of emotional currency capable of being calculated and distributed in lots,” which have “a certain definite value independent of any special tastes of the individual”. But the system thus criticised seems to me to be a caricature even of Bentham’s, who has a great deal to say about the variations of the individual’s sensibilities, and to have very little resemblance to any system that has flourished since the influence of J. S. Mill—and, chiefly through Mill, of Comte—has been strong. And here I may remark, that Mr. Stephen seems to me throughout to exaggerate the novelty, not of his own speculations, which he is rather disposed to underrate, but of those of the English Evolutionist school: he seems hardly aware that the ideas of “sociology,” of the “social organism” and its relation to its environment, of the need of a positive and historical study of ethics and politics, were familiar to Englishmen from Comte’s writings, long before the theory of natural selection was invented.

From the discussion of the true criterion of morality, Mr. Stephen passes (in c. x.) to examine the adequacy of its sanction: or, in other words, the extent of the coincidence of Virtue and Prudence. That the two “approximately coincide”—in the wide sense Mr. Stephen gives to this adverb—will not probably be denied: nor will any one who accepts the general doctrine of evolution doubt that the progress of society has a certain tendency to produce healthy individuals whose characters conform approximately to the prudential ideal, and also individuals who have the social affections strong. But it does not necessarily follow that the two developments tend to coincide very closely; for though doubtless in a society where sympathy is generally vigorous, a man markedly defective in this respect is likely to be less happy, we cannot therefore argue that the precise development of sympathy which will be most useful to society will also be most conducive to the happiness of the sympathetic individual.

Nor does Mr. Stephen try to prove this. He points out in the first place that the type best adapted for social tissue includes many qualities besides those in which popular morality recognises merit, because they are qualities which do not comparatively require the encouragement of praise. “Nature,” says Mr. Stephen, characteristically, “wants big, strong, hearty, eupeptic, shrewd sensible human beings; and would be grossly inconsistent if she bestowed her highest reward of happiness upon a bilious, scrofulous, knock-kneed saint,” &c. This, however, is really rather an argument against popular morality—as in

fact Mr. Spencer uses it : except so far as the useful qualities in question are connate superiorities, in which case they are not really relevant to the question at issue : since—taking Mr. Stephen's comparison—in order to prove the coincidence of Virtue and Prudence, we are not bound to show that a naturally bilious saint is happier than a naturally eupeptic sinner, but merely that he is happier than a sinner of the same unfortunate physical constitution. But in fact, as Mr. Stephen goes on to explain, though we may show that ordinary virtue tends generally to the interest of the virtuous individual, we cannot fairly deduce from the doctrine of evolution even this general presumption in respect of the virtue that is before its age. So again, if we consider the question from the point of view of the man who is not yet virtuous and ask if it is his interest to become so, the conclusion seems to be "that, as a very general rule at least, obedience to the external moral law is a matter of prudence for everybody; that it can be proved to almost any man that it is safer for him not to be at war with his fellows or indulge his appetites to excess; but that, on the other hand, it cannot be said with any confidence that if we were to consult the happiness of the agent exclusively, we should always try to instil into him habits of virtue which transcend this rather moderate limit." Still more clear is it that we cannot establish the coincidence in particular exceptional cases: that, to take the old stock instance, we cannot deny that Regulus may have been imprudent in returning to Carthage; "it may be true both that a less honourable man would have had a happier life, and that a temporary fall below the highest strain of heroism would have secured for him a greater chance of happiness". And Mr. Stephen is even inclined to think that not merely heroism but "even virtue of the ordinary kind demands real sacrifices upon some occasions". He sums up, indeed, by saying that the acquisition of altruistic sentiments may be recommended on merely prudential grounds; but he does not deny that from the point of view of the individual's happiness it would be better to cultivate them—like other tastes and impulses—in such a way that they would submit when necessary to the supreme control of the prudential reason. Whether he is right in holding that this conclusion "does not diminish the intrinsic motives to virtue, inasmuch as those motives are not really based upon prudence," is a profoundly important question, which I have not space to argue adequately; but Mr. Stephen would not deny that the development of civilised morality has, throughout its history, been accompanied by a general belief in the coincidence of virtue with the happiness of the virtuous agent, though with very different views as to the precise manner in which this coincidence is to be realised: and I cannot but think that he much underrates the support which ordinary morality has received from this belief.

Before leaving this topic, I must dispute Mr. Stephen's assertion that the problem presented by the relations of virtue and prudence is "bound up in the old one of the origin of evil". I should rather say that if the former were satisfactorily settled, the latter would still remain, but would cease to have more than a merely speculative inte-

rest. I do not explain why I am in a world full of misery by proving that my own happiness would always be maximised by the same conduct that would maximise happiness generally; but if I were convinced of this latter proposition, and could ascertain the conduct that would have these consequences, the solution of the former problem would have no practical importance.

In a concluding chapter Mr. Stephen deals briefly with what some would call the Metaphysic of Ethics—not that he himself would use the term, since it is his avowed aim to separate his “scientific” treatment of ethics from all metaphysical admixture. A writer who makes this his aim is usually liable to leave something wanting in the statement of his first principles: and Mr. Stephen seems to me no exception to this rule. If I had to state the basis of his ethical system, I should describe him as holding that the general happiness of human beings was, in the abstract, the right ultimate end of human action, but was inapplicable as a criterion for the determination of actual rules; for which purpose, therefore, preservation of social tissue, being necessarily coincident with general happiness, must be taken as the practically ultimate criterion, and the end that ought to be consciously aimed at. But no such statement as this—in which the term ‘right’ or ‘ought’ is necessarily introduced in an absolute sense—is explicitly made by Mr. Stephen; and he often makes statements which seem to me incompatible with a clear apprehension of the necessary nature of an ethical first principle. He says, for instance, that the question “which man would on the whole observe the genuine moral code with the fewest exceptions” is “a question of fact, to be settled by psychologists and direct observation” (p. 38); and again “it is a simple objective fact that a man acts rightly or wrongly in a given case”. Now, undoubtedly, the conduciveness of an action to human happiness is a fact ascertainable—at least theoretically—by psychological observation and inference: its conduciveness to the preservation of social tissue is a fact similarly capable of being brought to the test of sociological observation; but neither psychologist nor sociologist can observe that either general happiness or preservation of tissue is the true ultimate standard for determining right and wrong, the true ultimate end to the realisation of which the “genuine” or “ideal” moral code is the best means. Such propositions as these are purely ethical and do not represent “facts” either of psychical or physical experience. Similarly, when Mr. Stephen maintains that it is capable of “scientific proof” to a murderer that murder is “wrong, as being opposed to that underlying moral code which expresses the conditions of social welfare,” I must again answer that it may doubtless be scientifically proved that murder is not generally conducive to the preservation of social tissue, but that if it can be scientifically proved that the murderer ought to adopt the preservation of social tissue as his ultimate end, the proof must be different in kind from any reasoning that Mr. Stephen has used; and I am unable to conjecture how he would set about constructing it. In a later passage (p. 448) Mr. Stephen seems to suggest that the historical method may lead us to

such a proof. He says that we "may look for some approximation to agreement" in ethics and politics as the historical "method is more generally adopted and more systematically carried out . . . when we cease to ask 'what is the moral' and ask 'what men have actually admired'"; since the "true nature of the thing" may then reveal itself. But the "true nature of the thing" is in this case the true answer to the ethical (or political) question "what is ultimately right or good": and if Mr. Stephen holds that the examination—on however large a scale—of men's opinions as to what is right or good will supply a cogently reasoned answer to this question, I can only entreat him to state explicitly and fully the steps of the reasoning by which this result is reached; since I have long and vainly sought for such a statement in the most elaborate treatises of the historical school.

H. SIDGWICK.

Ἀριστοτέλης περὶ Ψυχῆς. Aristotle's Psychology in Greek and English, with Introduction and Notes by EDWIN WALLACE, M.A., Fellow and Tutor of Worcester College, Oxford. Cambridge: University Press, 1882. Pp. cxxviii., 327.

It is a marked tendency of thought at the present day, on the one hand, to set aside as insoluble, or condemn as unprofitable, the fundamental problems of philosophy, and, on the other, to build, more or less blindly, upon the very unstable foundations laid by one or two modern men. Under these circumstances, it is a genuine pleasure to meet with a work like the present, solid, scholarly and testifying to a sincere willingness on the author's part to reconsider the principles and assumptions of philosophy and without prejudice to accept light from whatever quarter it may come. It is, moreover, a hopeful sign when a thoughtful man turns back to Aristotle, and, disregarding the obloquy with which his doctrines have frequently been treated, especially by popular English thinkers, makes it his purpose to present these doctrines in an intelligible modern form. This is what Mr. Wallace has done with respect to Aristotle's psychological doctrines, and, let us say it at once, has done with most praiseworthy success. In saying this, we do not mean either that Aristotle's theories are tenable in the light of more recent thought, or that Mr. Wallace's work is perfect; but the former have, at least, a profound interest for the historian of thought, and the latter is so very good that one feels almost ungrateful in pointing out its few shortcomings.

The work before us consists of a clearly and dispassionately written introduction of 116 pages, a carefully edited Greek text, a free translation into English, for the most part easy and accurate, two appendixes—one giving the additional version of part of Book II., from the Paris MS. (E), the other all the ancient testimonies relating to Aristotle's psychological dialogue, *Eudēmos*—excellent indexes and a partial list

of "recent works relating to the psychology of Aristotle". In his preface, the author says: "Explanation, rather than textual criticism, has been the end which I have set before myself". In pursuance of this end, he has availed himself of the aid derivable from the whole of Aristotle's works, from the Greek commentators on the same, and from "recent works" written to elucidate the *Psychology*. He has voluntarily declined to call in the aid of Plotinus and the Arab and Scholastic commentators of the Middle Ages, and has, no doubt involuntarily, overlooked not a few very important modern aids. That he should have neglected the acute criticisms of Plotinus, some of which wound Aristotle's principal theories to the very heart, is all the more to be regretted that the merits of that thinker as a critic of Aristotle have elsewhere been so imperfectly recognised. Had Mr. Wallace read the passage from Plotinus quoted by Eusebius (*Præp. Evang.* XV. 10), we think he would hardly have dealt so leniently as he has done with Aristotle's definition of the soul; and had he consulted the fourth *Ennead*, he would not have failed to find many things throwing light upon Aristotle's doctrine of a creative reason, about which he not unnaturally entertains some doubt, and which, indeed, he has not quite correctly explained. One can hardly blame a writer nowadays for being unwilling to launch himself on the sea of mediæval commentary, with its cumbrous method and endless fine-drawn distinctions; nevertheless, no one can become familiar with the best of these commentators—Averroes, Albertus Magnus, Thomas Aquinas, &c.—without discovering that they have been very much undervalued in modern times, and that they often throw a flood of light upon the most vexed passages of Aristotle. The truth is, these men had a familiarity with the doctrines of the Stageirite, which we should look for in vain in any modern writer—a familiarity which enabled them to see each part of the system from the point of view of the whole. Hence Trendelenburg can hardly be acquitted of the charge of flippancy when he writes: "Omnia, quæ medio præsertim ævo ad hoc de anima scriptum allata sunt, conquirere nec potuimus (!), vix enim tanti labori vita suppeteret, nec, si potuissemus, voluimus" (*Præf. ad De An.* p. lxix.). The Schoolmen in many cases thought out into clearness, and fixed for all time, distinctions which in Aristotle's mind remained floating and vague, and in his writings never found adequate expression. Among these may be specially noted the distinction between immanent act (*actus purus, ἐνέργεια*) and transient action (*actio, πράξις, κίνησις*)—a distinction which Mr. Wallace, not without detriment to his work, has altogether overlooked. It is, indeed, impossible to arrive at an adequate conception of Aristotle's creative reason (*νοῦς ποιητικός*—the expression, by-the-by, does not occur in Aristotle) which "does not at one time think, at another time not think," and which "is unaffected by its objects," without having a clear notion of that immanent act which he calls the "act of the completed" (*ἡ ἐνέργεια ἡ τοῦ τετελεσμένου*). Had Mr. Wallace fully grasped this notion, he would hardly have used the Hegelian

term, *process*, to designate the *voûs*; for, if there be anything which the Aristotelian *voûs* is not, it is process.¹

Mr. Wallace's Introduction, divided into thirteen chapters, after treating of the psychological treatises of Aristotle and their relation to his other writings, the scope and method of Psychology as conceived by him, and the pre-Aristotelian psychology, proceeds to give a *résumé* of the work under consideration. This Introduction is a clear, concise, forcible and altogether excellent piece of writing. It avoids all unnecessary subtleties and technicalities, and yet faces and grapples with every difficult question. It testifies to a very accurate knowledge of Aristotle's writings and an excellent judgment in dealing with his not seldom contradictory statements. The most interesting chapter in it is the eleventh, headed "Aristotle's Theory of Thought," a subject which has vexed the thinking world from the days of Theophrastos to our own, and which even Mr. Wallace cannot be said to have treated altogether successfully. This we have already hinted, and Mr. Wallace seems himself to be partly aware of it (see p. cvii.). On one main and much disputed point he must be pronounced unquestionably right, *viz.*, in holding that Aristotle maintained the doctrine of a one universal intellect. In this he sides with Eudêmos, Alexander of Aphrodisias, the Arab Peripatetics, Albertus Magnus, Hegel, Rosmini, Ravaisson, Renan, and Zeller, against Theophrastos, Themistios, Thomas Aquinas, Suarez, Trendelenburg, Brandis, and Brentano. When, however, he declares, on the one hand, that this "creative intellect is clearly, to begin with, not the intelligence of

¹ It is curious enough that of the twenty-six recent works named by Mr. Wallace as having helped him in some way or other in arriving at his conclusions, twenty-three are by Germans, two by Englishmen (Grote and Lewes), and only one by a Frenchman, while works by Italians are entirely ignored. The list omits the following works, several of which are more important than any contained in it.

(1) Rosmini-Serbati (A.), *Aristotele Esposto ed Esaminato*, Turin, 1858, 8vo, pp. 676. Though not free from mistakes, and though badly printed, this is by far the ablest work on Aristotle written in modern times, or, indeed, perhaps in any time. Of all great thinkers, Rosmini is almost the only one who so thoroughly emancipated himself from Aristotle's influence as to be able to lay bare with a just and unflinching hand the radical defects of his system.

(2) ——— *Nuovo Saggio sull' Origine delle Idee*, 6th ed., 1875-7, 3 vols. 8vo, pp. lxiv., 429, 539, 485. The part relating to Aristotle is in Vol. I., §§ 222-274.

(3) Ferri (L.), *La Psicologia di Pietro Pomponazzi secondo un manoscritto della Biblioteca Angelica di Roma* (Comento inedito al *De Anima* di Aristotele), Rome, 1877, 4to, pp. 220. Prof. Ferri's Introduction to this work (pp. 84) contains many valuable suggestions.

(4) Barco (G. B.), *Aristotele: Esposizione Critica della Psicologia Greca. Definizione dell' Anima* (*Il Trattato dell' Anima*, lib. i. and cc. 1-3 of lib. ii.), Turin and Rome, 1879, 8vo, pp. 69. A continuation of this work has recently appeared, with the title: *Dell' Anima Vegetativa e Sensitiva, Saggio di Interpretazione*, Turin, 1881.

(5) Schell (J. H.), *Die Einheit des Seelenlebens aus den Principien der aristotelischen Philosophie entwickelt*, Freiburg i.B., 1873, 8vo, pp. viii., 269.

God," and, on the other, that it "easily approximates to that universal thought or λόγος 'which was in the beginning'—as the *a priori* condition of a rational experience—and which was also God himself" (pp. cix. sq.), one is at a loss to know what he means. Aristotle's own opinion on the subject is clear from a fragment of the dialogue *On Prayer*, in which it is said that "God is either intellect or something beyond intellect" (ὁ θεὸς ἢ νοῦς ἐστὶν ἢ ἐπέκεινά τι τοῦ νοῦ. Frag. 46; 1483 a 27 sq.). The truth is, Aristotle was a pantheistic materialist. For him the universe consisted of an unreal, merely potential matter actualised into temporary entities by forms intrinsically empty and having their locus (τόπος) in a single supreme form (εἶδος εἰδῶν) which was intellect or God. Mr. Wallace, therefore, goes too far when he tries to make Aristotle an Hegelian and a panlogist. It is true that there are many points of agreement between Aristotle and Hegel, due, in great measure, to borrowing on the part of the latter; but Hegel, in his eagerness to get rid of the 'Ding-an-sich,' even in the mild form of unreal, unknowable matter, in which it was accepted by Aristotle, involved himself in crude absurdities, which it is unfair to attribute to the older philosopher. Indeed, if there be one grave fault to be found with Mr. Wallace's interpretations of Aristotle, it is a tendency to take advantage of the vagueness and contradictoriness of some of his doctrines to give them an Hegelian twist. For example, when he confounds truth with realisation, in such statements as "the soul is the substance—that is, the concrete reality or substantive truth of the body," he is using "truth" in a false, Hegelian sense, utterly foreign to the spirit of Aristotelianism. No doubt Hegel's panlogism, which is, and must be, throughout a system of equivocation, requires that truth should be confounded with reality, and thought with being; but no one can be familiar with Aristotle's writings, without knowing that to him they are wide as the poles asunder. He certainly never dreamed of identifying ἀλήθεια with ἐντελέχεια, a quality of judgment with a perfection of essence. Again, when Mr. Wallace tells us that "every real thing is at once individual and universal, it is an individual universalised by the relations in which it exists or an universal individualised through the particular conditions which determinate existence imposes upon it," he is using language which not only involves contradiction but is entirely alien to the thought of Aristotle. That philosopher certainly never dreamt of the Hegelian doctrine which lays down that a thing is the sum of its relations. His doctrine of universals is blundering and self-contradictory enough; and this for the reason that, in his eagerness to differ from Plato, he obliterated the distinction between the real and the ideal, between the *individuum vagum* of abstraction and the *idea* of intuition; but he is perfectly clear in regard to the source and principle of individuality, which, according to him, is matter and not relation or "particular conditions"—if, indeed, this last expression is not purely tautological. A very slight acquaintance with the Arab and Scholastic commentators would soon have impressed this fact. Indeed, had Mr. Wallace been more familiar with these old thinkers

and less so with the vagaries of Hegel, his account of Aristotle's theory of thought could hardly have failed to be more correct than it is. We should not then have had the creative reason, whose energy Aristotle compares to that of light, presented to us as something that "must construct an intelligible world, an object of thought in which and with which it may operate" (p. civ.). Surely no one, who did not wish to be paradoxical, would say that light "constructed" the visible world. There is a wide distinction between constructing and manifesting, and there is no sense in which light can be said to "determine and constitute the very subject-matter of its action". One cannot but profoundly regret that Mr. Wallace should have allowed himself to be misled by Hegel into such misinterpretations.

In chap. xiii. of his Introduction, Mr. Wallace undertakes to give a "general estimate" of Aristotle's psychological doctrines. This, though by no means flattering, must still be pronounced over-indulgent. The source of this indulgence one easily discovers in such a statement as this: "The conception of a personal, isolated and yet universal, self, had not been grasped by the philosophers of antiquity," which implies that the conception has been grasped by philosophers in modern times. Against this implication we can only enter our strongest protest, and declare that no such conception is even possible, inasmuch as it involves a contradiction. Indeed, the supposed notion of a personal, universal self is as pure a piece of metaphysical mythology as any Comtist could desire to make an example of. By admitting such a conception, Mr. Wallace is prepared to deal leniently with the *νοῦς ex machina* in whose inscrutable action Aristotle lodges the solution of all those problems of thought which he cannot disentangle. It is the old story of translating a known effect into an unknown cause, giving the latter a name and calling it an explanation. Aristotle's creative reason is no more an explanation of thought or things than vital force is of life, or phlogiston of combustion. The same may be said of his notion of soul as the realisation of the body. So regarded, the soul is merely the sum of the activities of the body abstracted in the form of a cluster of potentialities. This view, instead of helping us to knowledge, merely increases words without understanding. As Lotze puts it: "The doctrine of soul-faculties may be considered a convenient method of cataloguing mental activities, but it is no explanation of them" (*Grundzüge der Psychologie*, p. 73).

When Mr. Wallace, still leaning toward Hegel, tells us that Aristotle's theory of a creative reason is "an emphatic assertion of the priority of thought to matter in the universe" (p. cxxviii.), we must call this unqualified statement in question, and demand proof of it. If thought be prior to matter, matter must have been created or produced; but we have Aristotle's distinct assertion that matter is unproduced and indestructible (*ἀφθαρτον καὶ ἀγέννητον ἀνάγκη αὐτὴν εἶναι*. *Phys. A*, 9; 192 a 28 sq.: cf. *Metaph. A*, 3; 1069 b 35 sq.). There certainly can be nothing prior to that which has no beginning. These few examples will perhaps suffice to show how completely one part of Mr. Wallace's work is vitiated by Hegelian prepossessions. We

are sorry to be obliged to make this adverse criticism on a book otherwise generally so admirable; but Hegelianism plays such havoc with correct interpretation, wherever it obtains admission, that it must be carefully checked by every one who desires to arrive at truth.

Mr. Wallace's text of the *De Animâ*, based chiefly on the editions of Trendelenburg and Torstrik, is all that could be desired. He deserves great praise for the conservative manner in which he has dealt with it, and the patience and success with which he has elicited meaning from seemingly desperate passages, without altering the traditional readings. He possesses, indeed, a hermeneutical talent of the very highest order—a talent which has enabled him to set aside many of Torstrik's rash suggestions, and even wholly to disprove the theory that the text of the third book is made up from two versions. His choice of various readings is in the highest degree judicious and useful.

The translation is for the most part fluent and correct. It suffers, indeed, from a little verbosity, consequent upon an attempt to clear it of Græcisms; but this is a very slight fault, and perhaps hardly avoidable. Here and there we find an awkward sentence, as for example this one, which occurs on the very first page: "The object of investigation *is*, it *is* true, the same here as it *is* in many other subjects—it *is*, that *is*, the question of the essential notion of the generic character" (the italics are ours). Still more frequently do we find entirely false renderings, some of which seriously interfere with the sense and must be regarded as blemishes. On page 25, we find *φθίσις* rendered by "decomposition," instead of by 'decay' or 'diminution'. On page 29, *συνεφέλκειν* is rendered by "to contract," instead of by 'to draw along,' and thereby the whole sense of Dêmokritos's doctrine of the soul is obscured and the passage rendered meaningless. Here Mr. Wallace evidently confounded *συνεφέλκειν* with *συνέλκειν*. In several places, the word *ὁμοειδής* = 'of the same species,' is rendered by "homogeneous," a rendering which in one instance destroys the sense of a passage. On p. 5, ll. 24 *sqq.*, we read: "Another question, we shall have to ask, is whether it [soul] is divisible or free from parts, and whether again all souls are homogeneous [*ὁμοειδής*] or not; and if not homogeneous, whether it is specifically or generically that they differ". This, of course, is meaningless. If souls are not homogeneous, *i.e.*, of the same genus, there can be no question as to whether they differ generically; whereas, if they are not of the same species, the question may very well arise whether it is in genus or *merely* in species that they differ. On p. 21, we find *ἀναθυμίασις* translated "fiery process," an expression which is as false as it is Hegelian (see Hegel, *Gesch. der Philosophie*, Vol. I., pp. 339, *sqq.*, edit. 1833). It would be easy to swell the list of these mistranslations; but the task is an invidious one, and we prefer to speak of the merits of the work rather than of its demerits, which are in a very small minority.

Mr. Wallace's notes are just what notes ought to be, neither too many nor too few, giving no superfluous explanations and shirking no real difficulty. In not a few places we find Hegelianism intruding

itself injuriously ; but perhaps enough has already been said upon this subject. Everywhere we meet with evidences of a long and careful study of the works of Aristotle and a patient endeavour to arrive at his real meaning. If there is anything that we desiderate, it is a plain statement of the scientific value of Aristotle's various theories and their bearing upon modern science and thought. Hardly any greater service could be rendered to modern philosophy, which is still shackled by Aristotelian prejudices, than, once for all, to exhibit the presuppositions and implications of Aristotle's main theories. For such a service there is plenty of room even after Lewes's unfortunate work.

Thus far we have dealt only with Mr. Wallace's labours, and, apart from an undue tendency to Hegelianism, we have found little that does not deserve high commendation. A further question, however, comes to be : What is the value for science of Aristotle's doctrine itself, when explained correctly ? To the historian of human thought its value must be admitted to be very great indeed. Few philosophical doctrines have played so important a part in the world as those propounded by Aristotle in regard to the soul and the nature of thought, and it is, therefore, of the highest moment that they should be thoroughly comprehended. To the philosopher, as such, on the contrary, the value of most of these doctrines is very problematical. Something no doubt may still be learnt from the clear distinction maintained by Aristotle between sensation and intelligence, so often lost sight of at the present day ; but this, we fear, is the sum of what he has to teach us. His vague, Oriental and useless doctrine of a universal intelligence, his confusion between the ideal and the real, his identification of the action of intelligence with its objects, his vacillating views concerning the nature of universality, his theory of the nature of the soul, and his tautological definitions, are all things which have to be understood only in order to be avoided. In the last three hundred years great progress has been made towards emancipation from Aristotelianism and its pantheistic, materialistic doctrines ; but such sad relapses as Hegelianism ought to show us how little assured even now our liberty is, and how earnestly we ought to strive to rid ourselves of those false ideal unities, which, when embodied in institutions, ever threaten to return us to slavery. We shall never be able to attain a rational or consistent explanation of the order of nature until we clear the field of philosophy from all those fictitious conglomerates, such as universal self, the Absolute, the Idea, which still encumber it, and until we learn that what we call the universe is the composite result of the activities of an unknown multitude of eternal, self-existent, self-centred entities each more or less intelligently striving with or against the rest for its own highest good. Until we learn this, the world will seem a tissue of iniquities and an insoluble riddle,

THOMAS DAVIDSON.

Das Leben der Seele, in Monographien über seine Erscheinungen und Gesetze. Von Prof. Dr. M. LAZARUS. Zweite, erweiterte und vermehrte Auflage. 3 Bände. Berlin: Dümmler, 1876-1882.

In these three volumes on the Life of the Soul, into which are expanded the two volumes that appeared in 1856-7, Professor Lazarus seeks to formulate and develop the laws of psychical activity in a series of monographs on "Culture and Science," "Honour and Renown," "Humour," "The Relationship of the Individual to the Community," "Mind and Speech," "Tact," "Blending and Co-operation of the Arts," "Friendship," and "The Origin of Morals". It may seem somewhat surprising that a work of this kind should appear in so free and novel a form, but our author is content to sacrifice conventional dignity in the hope of giving the results of scientific investigation in a shape acceptable to the cultured world at large, more particularly to the daily-increasing class of thinking women.

According to Lazarus psychology is a natural science. Every thinker is conscious of his thoughts and feelings, is aware of the psychical states of the moment; every cultured man seeks to have before the eye of the soul a true picture of the whole of his inner life, both past and present. But science endeavours to get a knowledge of subjective experience generally, of all events and processes in the realm of soul. And not only a knowledge of facts but an appreciation of causes—an *explanation* of the phenomena—is what we understand by science. After Aristotle psychology sought only the first-named object, and found nothing but an enumeration and classification of the various kinds of inner activity, to which as many and various powers were ascribed. Locke and Leibniz were the first to undertake a more exact psychological consideration and examination of the concrete individual, but in the Wolffian school the newly-cultivated field again lay fallow. It was at the beginning of this century, in Lazarus's opinion, that psychology assumed the character of a science. With his inquiry into the *laws* of psychical life Herbart prepared for our science a foundation which cannot be shaken, pointed out the road along which alone it can progress, the goal at which it has to arrive.

No doubt the first stage of insight into the multiform manifestation of soul is reached by simple reflection on the inner processes of one's own subjective experience; that is, both before and apart from science. More especially is this the case when, in the interest of poetic creation, the phenomena of mental life are distinguished and their qualities recognised by means of the apperception-organ, namely, Language. In historical times every cultured man receives with his mother-tongue the more or less clear understanding of those views which have been formed from the psychological facts in the public mind of his people. Thus, if an Englishman is asked, What is freedom? he can describe it in many ways, according as it is liberation, disengagement, release, enlargement, emancipation, breaking loose, shaking off the yoke, unfettering, enfranchisement, manumission, discharge, dismissal, deliver-

ance, redemption, extrication, acquittance, absolution, acquittal, escape. But in each particular instance only a few of the words can apply. If, on every occasion, we have every single side of a thing present in consciousness, it is nevertheless an unusual and by no means easy task to collect these scattered members of the whole and to realise them in the mind. This difficulty is greatly felt wherever the various sides of the phenomenon belong to entirely different spheres of the inner life.

What is Tact? What are we to understand by Friendship? What is the meaning of Culture, Humour, Language? The floating elements of inner perception are crystallised, through the word, in representation. Prof. Lazarus undertakes to show us what is meant by this symbolic condensation, and what are the conditions under which the phenomenon manifests itself. To the older psychology the question would have presented itself thus: to what special faculty is this phenomenon to be referred, or, has it not an independent existence by the side of other faculties, which may be possessed by one man and not by another? Such philosophical mythology, however, can lead to no real result, as has often been proved, and, in this case, Lazarus points out that, inasmuch as "tact," for instance, rests upon intellect, feeling, imagination, memory, and volition, it comes to little more than this: if one possesses intellect, feeling, &c., then too one has tact, and that again amounts to: if one is a man, one has tact. And if it be urged: no, only if a man has a certain kind of intellect, a certain kind of feeling, &c., then he has tact, nothing more is really said than: if one has tact, one has tact.

If, then, we would understand and explain any given phenomenon of our subjective existence, we must reduce it to its conditions, must find out the *processes* that take place in the mind, and study the laws of reproduction: in a word, we must understand the mechanism of consciousness. That Prof. Lazarus is always equally successful in disclosing the fine-spun threads of continuity and order in the life of the soul, is not to be expected. Here and there we notice that the structure is defective in the combination and grouping of its various parts, to say nothing of the needless repetition which seems to be common to all psychologists. Some of the studies, however, are masterpieces of psychological exegesis, whilst, of the monograph on "Mind and Speech," which takes up the whole of the second volume, it is perhaps not too much to say that it is the most complete and exhaustive contribution to the psychology of language that has yet been given to the world.

In endeavouring to answer the question, What is Tact? Prof. Lazarus begins by showing that it consists, first of all, in a wakeful delicacy of *attention* to all relations of the action of the moment. He then goes on to point out wherein the attention involved in tact differs from what is usually understood by it. In the realm of what is called tact, the mainspring of our action and conduct affects relations of which we are not clearly conscious, but which, nevertheless, have an effect upon the shaping of our action. And here we must not forget that the most important processes of our inner life take place quite in-

voluntarily. The laws of association, amalgamation, and complication, of union and of combination, with their corresponding reproduction, operate without the least intentional help on our part. It is doubtless true that we are able to direct our attention hither and thither both internally and externally, to make this or that the subject of our reflection, but, when we truly consider its range, it is so small that it cannot in the remotest way be compared with what the soul every moment effects undesignedly. Indeed, our selective attention itself would be well-nigh impossible, were it not for that regular movement of ideas which forms the basis upon which the mind designedly proceeds to build. That is to say, all conscious reflection is nothing more than a command and control of those laws of motion which are otherwise continually operative without purpose. Then, there is the simple psychological fact that, each moment, we can only think clearly and consciously a *small series of concepts*. All others, though in our soul, are not in our consciousness, but, so to speak, beneath the horizon. These simple psychological laws are easily proved experimentally. There is yet another which must be borne in mind if we would rightly appreciate the meaning of tact, namely, that every vivid idea which is in our consciousness calls up all others that are in any way connected and related. But, for this summoning to consciousness of the immediately-remembered ideas and those connected with them, a certain amount of time is requisite, which we must not fail to take into account. Tact, then, is that ready attention which appreciates the relations contained even in the fleeting ideas which glide through consciousness when a man is in society; that susceptibility and conscientiousness which enable him to pass judgment on those fleeting germs of a consciousness, so that his procedure is determined by it,—in short, when even the ideas which have scarcely come into consciousness work as effectively as the vivid and conscious ideas upon his judgment.

In his psychological analysis of Humour, Lazarus finds it to consist in a *contrast*: it is the union of the sublime and the comic. Humour may, indeed, be said to be a *Weltanschauung*. Fundamentally different from that of the satirist is the laughter provoked by the humourist. "The satirist amuses himself, when and because he vexes himself; the humourist amuses others where he afflicts himself. Satire finds fault while it laughs, humour weeps; satire pours out gall. . . . humour tears; 'to humour belongs, for the most part, harmless irony;' one might almost say, satire curses and humour prays".

Passing on to Prof. Lazarus's contribution to aesthetic theory we have to ask: In what way do the Arts co-operate and blend? In looking at a fine model or beautiful picture, is our pleasure disturbed or enhanced by listening to an appropriate musical accompaniment? Lazarus thinks that, owing to the contrast of the simultaneous and successive among impressions of sight and hearing, which, moreover, is increased by the difference in the process of apprehension, there cannot but be disturbance through their simultaneity. Lessing's researches into the provinces of the various arts and the limits of

artistic principles, though of lasting worth to all art-doctrine, were nevertheless restricted to a purely aesthetic question, namely, that of determining the aesthetic function and status of each particular art; that is to say, an examination into the nature and contents of the arts and their value as sensuous media. Lazarus seeks to point out in what way aesthetics is related to psychology. After mentioning the rules respecting the highest forms of artistic harmony, he goes on to show how the form of the beautiful is identical with the form of ideality generally. According to this view, the beautiful is the idea of form. To know or conceive a thing means to apprehend its idea. Now, the idea is most fully manifested in the beautiful. The beautiful pleases us because in it the idea arrives at complete perception. Therefore, that is beautiful which is a complete representation of the idea, which brings the idea to sensuous perception. The truth of things manifests itself in beautiful form, for in it and through it shines the idea of the thing. No new truth is produced by beauty, but through it the truth of things is perceived by the senses; beauty pleases because it finds expression for the idea, makes it manifest, and gives it a sensuo-perceptual form.

The essence of the human mind is revealed in its activity; its aim is the development of a many-sided ideality, *i.e.*, the discernment of ideas and their realisation. To the mind the universe is the subject of cognition. The striving after completeness of knowledge is called the idea of truth, which is revealed in the evolution of all ideas of being. The picture of the world which is formed in the mind is no passive reflection, but the product of lasting and ascending creative activity. Then comes the question: How is the idea of the beautiful related to that of the true and the good? Shortly speaking, one may say that the connexion between the ideas of the ethical and those of the physical consists in the fact that, by means of the psychical and more particularly of the volitional, morality must become real and reality moral. All human ideality is subject to law—physical, psychical, and ethical. Everything true and good, real and ideal, everything sensuous and everything moral, when once it is manifested, has a certain form. And this has its own peculiar ideality; this, too, is subject to a specific regularity: this ideality of form is the beautiful. If we characterise the ideality of things generally as an order, a cosmos as distinguished from chaos, if the end of a knowledge of the universe is conceived as a "Weltordnung," then, besides the natural and moral, we find and create an aesthetic "Weltordnung"; in the world of reality is manifested the idea of the true; in the moral world the idea of the good; and, finally, in the form which they both take, the idea of the beautiful is manifested. Even in the form of things there will be manifested an order, a law, an ascending completeness, *i.e.*, an idea, *and this idea of form is beauty.*

We will now turn to what appears to us to be by far the most important part of Prof. Lazarus's work—the monograph on "Mind and Speech". It is as a psychological student of language that Lazarus is especially known and valued. Co-editor with Steinthal of the

Zeitschrift für Völkerpsychologie und Sprachwissenschaft, he has been for years an indefatigable worker in the field of linguistic philosophy. By more than one apostle of the mind it has lately been maintained that all future philosophy will be a philosophy of language. Not only do we find the higher order of linguistic students renouncing the purely grammatical and syntactical standpoint for the exploration of the borderland between philology and philosophy, but psychologists themselves are beginning to see that language is not so much the garment as rather the *body* of reason, and that the problems of reason, or the mythology of philosophy, can only be solved by a critique of Language. Indeed, we venture to submit that language has made nearly all our riddles in ethics, psychics and religion, and must therefore be made to solve them. Let us not be misunderstood. It is possible, no doubt, to think in sight and to see in thought: modes of mind can certainly be represented in architecture, sculpture and painting, but no fine art in its richest forms can tell us such a simple fact as: last summer there was a bad harvest. Again, in nature everything is either necessary or contingent, there is no still small voice to whisper: "thou canst, for thou must"! In other words, sequence of time and moral obligation can only be expressed in verbal symbols. And this leads us at once to consider the relation of language to thought, that is, to seek the origin of Reason.

Nothing is perhaps so interesting, so instructive, as the history of speculation concerning the essence and origin of speech. In no department of research have the two logical fallacies of *ignoratio elenchi* and *petitio principii* been more subtly hidden under solutions at once plausible and authoritative. From the time when Democritus and Aristotle asserted that language existed *θεσει*, by human convention, overlooking the fact that this would necessarily involve the capacity of speech in man, and Heraclitus and Epicurus declared it must be *φύσει*, by nature, which would imply a universal language, down to Herder, Adam Smith, Condillac and Heyse, the very thing that had to be explained was taken for granted. The fact of the necessary interdependence of speech and reason, and their alternating evolution, was entirely overlooked. This truth, which was dimly shadowed forth by Descartes and Spinoza, and became more definite in Kant and Schopenhauer, has in our day become so clear that any theory of language which is not founded upon well-ascertained laws of apperception can have little more than an historical value. As Steinthal has well said: "If the origin of language is to be considered as part of the primitive history of mankind, it must be treated as a drama with many acts, extending over long periods. These acts are apperceptions or word-formations. Language is the process by which concepts are formed from perceptions."

Lazarus begins his investigation by considering the interaction of body and soul; from this he is led to seek the origin of language, and then to notice the acquisition and development of speech, the influence of language on the mind, and the congruence of thought and speech and mutual understanding.

Now, the lowest form of the soul's life, its first basis, is unquestionably *feeling*, or diffused nervous energy. Given the nerve, in unimpaired connexion with its centre, and we have everywhere in the body this primary consciousness as, what Glogau calls, "the vegetative psychical circulation". The second stage in the evolution of the soul is *sensation*, or localised nervous energy, which is limited to certain afferent nerves. Whilst we experience feelings with almost every part of the body, our sensations only come to us through the five senses—sight, hearing, smell, taste, and touch. These two psychical stages correspond to what Steinthal has well called the *pathognomic* stage in language. That is to say, feelings and sensations have their sound-reflex in *cries* and *interjections*. According to Jäger's scale of the human natural sound, they would embrace the first and second periods :—

I. Period of sensation-sounds and sensation-gesture.

(a) Courting (sexual) call.

(β) Family-call : cry of warning, and the food-call.

(γ) Social call.

II. Period of gesticulation, which consists in this, that the chief "distance-sense," the eye, is no longer satisfied with its own gesture, but calls to aid a synkinetic organ.

Purpose : Understanding about things present.

The third stage in the development of soul is *perception*, or a manifold of present and remembered sensations, by which the picture presented to the mind through the sensory nerves is apprehended. This would give us our second factor in the origination of signs, namely, *onomatopœia*. In Jäger's scheme, the third and fourth periods :—

III. Period of Imitation : air-picture and sound-picture ; the former a continuous development of gesticulation, the latter resulting from the fact that the second "distance-sense," the ear, enlists the service of its synkinetic organ, the voice.

Purpose : Understanding about things absent.

IV. Period in which the air-pictures are supplanted by sound-pictures. The motive is the desire to make oneself understood where an air-picture is not possible, *i.e.*, at some distance, by night, or round the corner.

In music, too, the primitive scale is a reproduction of the sounds of animated nature, so that, at this stage, language and music may be said to be a plastic representation of thought. It is not long, however, before the actual sound-painting becomes extended. When a child designates a dog by *bow-wow*, the cow by a *moo-moo*, it understands thereby not only the dog, the cow, as definite species, but all dogs and cows, whether alive or in sculpture and painting, and not only these, but everything that belongs to the dog and cow.

But, language in its real sense, as a vehicle of conceptual thought, first begins with *apperception*, or the fourth stage of the psychical evolution, corresponding to what Lazarus calls the *characterising* stage in language. Whereas the former stages fail to advance beyond the threshold of speech, the apperceptive stage renders possible an almost

endless progress in linguistic structure and variety. Apperception may be defined as the taking up an external perception into the order of like perceptions already present in the mind. Almost every perception is accompanied and supplemented by an apperception; that is to say, to every apprehension from without there comes, to supplement and complete it, according to the law of reproduction, the already existing internal order of co-existence and sequence. Sensation and perception furnish us with the residua of speech, with roots, or the "apperception-stuff," from which by means of apperception, the microcosm is built up. And here we see the connexion of pathognomy with onomatopœia. According to Steinthal's pregnant suggestion, the perceptual reflex was repetition of a syllable; given the root *dādā*! then the sentence *dā dādā* would be: *filius fellat*, the *suckling sucks*. From *dā-dā*, *nan-nan* (the first sounds uttered by our own infant) to *ding-dong*, *tik-tik*, and other mimetic sounds, the transition is an easy and natural one. And the tendency of linguistic science is undoubtedly towards a reduction of the number of primary roots; for this reason, that much of what we are accustomed to call original is really derived. What Wilhelm von Humboldt called the "inner speech-form" is, at this fourth stage, the mode of apperception of a new subject through one already present in the soul. Here, too, the name of a thing is given according to its prevailing quality, but the reason for its prevalence no longer lies merely in the strength of the impression, but essentially in its relation to the definite apperceiving idea. Lastly, we must not forget that, in many respects, silence is as important for the evolution of the mind as speech itself. "By talking and keeping silence in society," says Lazarus, "the human soul reached that stage of its activity which we call mind."

With regard to the influence of language on the mind, we have first of all to remember that our psychical life is made up of conscious and unconscious elements. If we think of consciousness as a brightly illuminated space, surrounded on all sides by widely extended darkness, then we may say that all the elements of psychical life must move *seriatim* over this illumined surface, but that, in any given moment, only a short series of elements enjoys the privilege of that illumination, to again disappear in the darkness from which it arose. This fact is what is known as the "narrowness of consciousness". The dim elements, though outside consciousness, are nevertheless co-operative with those within, are, in fact, in a state of *co-vibration*. This fact was overlooked, if not denied, by Herbart, as it did not accord with his doctrine of the soul's unity and its consequences. Now, how is the "narrowness of consciousness" to be overcome? On the one hand, by what is known as the process of *condensation*, and, on the other, by that of *representation*. In "condensation" we cram into the momentary act of thinking the whole subject which is involved in the creation of the present thought; in "representation" the act of thought is entirely cleared of the real substance, a mere image of the same being all that it knows. And representations arise with language, the thought being apperceived through the sound. We then come to

the various kinds of apperception, the identifying, subsumptive, creative and symbolic, which play so important a part in the association-psychology. The evolution of language may be said to be an extension of apperception. So convinced is Steinthal of this fact that, in his *Abriss der Sprachwissenschaft* (MIND XXVII. 453), he devotes 100 pages to its exposition and application.

And here it may be well to note in what, though agreeing with him in the main, Prof. Lazarus differs from his friend and colleague Prof. Steinthal. First, as regards the "narrowness of consciousness", Steinthal contends that there can only be *one idea* in consciousness at the same time. Lazarus, on the other hand, affirms that there is at least a small number present. He thinks that Steinthal does not make sufficient allowance for the energetically co-vibrating elements which really co-operate to make a unity of the act. He also points out that there are but few, if any, ideas which are not compound. The second difference is respecting the psychological nature of representation. Steinthal accepts with Kant that representation is always "an empty reference of consciousness to perception". To this Lazarus replies: No, for in your own example: the body is divisible, the interest rests with the predicate, divisibility, and "divisible" is a representation, here energetic as predicate, and certainly much more definite than "body". Conversely, if body is predicate. Lastly, Steinthal rejects Lazarus's view of self-consciousness which implies repeated thinking, reflected as in a mirror, on the ground that it involves a *regressus in infinitum*. "But," argues Lazarus, "it is a mistake to think that a process must in reality complete or be dependent upon such a regression because potentially or conceptually it may lead to it."

To sum up. Language is the progress from perception to representation, which, as Steinthal has pointed out, is perception of perception. "Manifold apperception of the same phenomenon," says Lazarus, "with the immediate consciousness that it is a manifold of the one subject, and filled with the difference of novelty, of what is striking or important, generally, of what is especially interesting at the moment of speaking, is the origin and foundation of judgment in thought and of the sentence in language." Representation is either of the subject or of the predicate, and perception (*Anschauung*) is the unity of both. The progress of language being from perception to representation, that of science is from representation to *conception*. It is the peculiar character of the linguistic or general national consciousness that its "representations" are complete neither in totality nor in speciality. But conception, which unites in itself the psychological qualities of perception and representation, is directed to complete collation and separation of the elements. Thus, the total effect of language on the mind may be said to be the formation of self-consciousness and the building up of the inner world.

H. M. BAYNES.

VII.—NEW BOOKS.

[These Notes do not exclude, when they are not intentionally preliminary to, Critical Notices later on.]

Ants, Bees, and Wasps: A Record of Observations on the Habits of the Social Hymenoptera. By Sir JOHN LUBBOCK, Bart., M.P., F.R.S., &c. ("International Scientific Series," Vol. XL.) London: Kegan Paul, 1882. Pp. xx., 448; 5 plates.

Animal Intelligence. By GEORGE J. ROMANES, M.A., LL.D., F.R.S., &c. ("International Scientific Series," Vol. XLI.) London: Kegan Paul, 1882. Pp. xiv., 520.

These two works, separated in publication by a short interval, bring animal psychology fairly into line with other departments of science in the series to which they belong. Sir John Lubbock's observations, spread over the last ten years and here collected into a continuous exposition, have become too well known to need any particular description now. They are mainly directed to testing the general mental intelligence and social characteristics, also, in particular (as could be most definitely done), the sense-endowment of ants and the related kinds of bees and wasps. Though the general result of the experiments—which could not have been more intelligently devised and, in the case of ants, more patiently carried through—is to lower the consideration in which the social hymenoptera previously stood for practical ability, there is sufficient evidence left to warrant the placing of them, at least the ants, as high in the scale of mental evolution as perhaps any other class of animals below man. The special interest attaching to ants and the others lies, of course, in their having attained such a pitch of social organisation upon a side-line, off the main trunk-road of evolution; but as it seems clear that their modes and range of sensibility and emotion are comparable with those of other animals up to man, the explanation of their social habits, however exceptionally developed, cannot well be regarded as other than a psychological problem. If, only, there were any means of solving it! Meanwhile, in a subsidiary way, nothing is more wanted than a thorough investigation of the nervous system in the class. Though a mere speck altogether, compared with the nerve-masses of vertebrates, the brain in ants may involve differentiation enough, and indeed must be organised in the most complex way, however their actions be interpreted. Sir J. Lubbock, in his monograph, does not touch this side of the subject.

Mr. Romanes (who also devotes a large amount of space, pp. 31-197, to ants, bees, and wasps, and who does not omit by the way some reference to the neurological conditions in ants) designs his present volume as a foundation for another, to follow within a year or two, on "Mental Evolution," in which he will consider "the facts of

animal life in their relation to the theory of Descent". The present volume gives, in order upwards from the lowest forms of life to monkeys, a critical assortment of the facts, with only such reference to general principles, in an Introduction (pp. 1-17), as is necessary for understanding the psychological point of view from which and language in which they are described. The main outcome of the Introduction is a distinction of Reflex Action, Instinct and Reason, the chief objection to which, as regards the first two terms, is that it is hardly, if at all, observed throughout the later exposition; while there is also some want of clearness, and wavering between pp. 13 and 16, in the view of Instinct as related to individual experience. As regards Reason or "Intelligence," defined (subjectively) as conscious or intentional adaptation of means to ends and distinguished from reflex action and instinct as of "variable and incalculable character," Mr. Romanes is (p. 4) by no means oblivious that the distinction may not be so easy to maintain from the physiological point of view, and as good as promises to grapple with the difficulty (where it has to be faced) in his treatment of the general problem of Evolution. Meanwhile the collection of facts which fills the preliminary volume is presented in a form which, while interesting to the common reader, will also make the book of lasting use to the scientific student. It is a record of animal intelligence so much superior, on the whole, to any that has gone before it in critical discrimination and also, within its compass, in fulness and variety of material, that the author may be heartily thanked for it. It is not so clear, however, that the facts recorded are quite those that will prove most serviceable, or are arranged at each stage in the best manner, for the use he designed to make of them. For one thing, a distinct appreciation at each stage (as far as possible) of the range and variety of sense-endowment would surely have afforded a more definite basis for conclusions as to mental evolution, than is supplied by reports (or rather hypothetical interpretations) of such complex adaptive activities as are set to the account of all animal forms alike from the very lowest upwards. (And speaking of sense-endowment, we miss all record of the remarkable facts bearing upon the disputed question as to the existence of a special 'sense of direction,' referred to at p. 571 above, in the present No.) Sense by itself is not, of course, all that any one means by "Intelligence," but, if it is impossible even in the case of man to discuss intelligence without reference to sense, still less can the two phases of mind be separated in the lower forms of animal life. Again, as regards Intelligence proper, some more express analysis would not have been amiss, in view of such a remark as that at p. 153, where "association by contiguity" seems to be first detected in a particular act of some bees. Are all the marks of complex intelligence noted before in lower animals to be understood as proceeding apart from such mode of mental association? Once more, some continuous reference to the varieties of nervous organisation would hardly have been out of place in the execution of the preliminary part of the author's design; but perhaps this is meant to be afterwards

supplied. Mention should not be omitted of the observations, so admirably made and reported (pp. 484-94) by the author's sister, of the behaviour of a monkey (*Cebus fatuellus*).

Shaftesbury and Hutcheson. By THOMAS FOWLER, M.A., &c., President of Corpus Christi College and Professor of Logic in the University of Oxford. ("English Philosophers.") London: Sampson Low, 1882. Pp. 240.

Shaftesbury and Hutcheson are just such thinkers as can be not inadequately treated in volumes of this size, and the author has here shown that even a single volume may suffice for an effective handling of them both together. Shaftesbury, as he deserves (though he has commonly been made less account of), has the larger space (pp. 167) accorded to him. A very satisfactory biography (40 pp. in length), based upon independent research, is followed by critical reviews of his "Works and Style," "Ethical Theory" (40 pp.), "Theories on Religion, Beauty and Art," "Reception and Influence" of his writings. Hutcheson, whom the author had already dealt with in the *Encyclopædia Britannica*, is treated on a similar plan, in his case the chapter on "Ethical Theory" being followed by one on "Mental Philosophy, Logic, and Aesthetics". It was a right thought to couple the two, and the author works through his subject with a manifest sense of familiarity and ease.

The Life of Immanuel Kant. By J. H. W. STUCKENBERG, D.D., late Professor in Wittenberg College, Ohio. With Portrait. London: Macmillan, 1882. Pp. xiv., 474.

After Mr. W. Wallace's smaller volume noticed in MIND XXVII., the present work (which appears in uniform style with Prof. Max Müllers translation of the *Kritik d. r. V.*) should pretty well satisfy the English appetite for knowledge of Kant and his ways. It is an honest, straightforward piece of work, based on the widest reading of the huge and ever-increasing mass of Kantian literature, and the author, from the fulness of his information, manages to sustain the interest of his subject till the end. The narrative has been filled out to its length with copious references to Kant's surroundings and contemporaries, but there are none of these which the English reader should be other than grateful to have set before him in so interesting a form. While aiming at no systematic exposition of the Critical doctrine, the author has yet been able to include a very fair statement of its development and scope. It is some of the smaller works, both the earlier and the later, of which a more adequate account might have been expected in so lengthy a treatise. (The author, it may be noted, speaks, like Professor Morris in the book noticed below, of the *Prolegomena* as a "popular" rendering of the *Krit. d. r. V.*: so far from that, Kant, whatever his first intention may have been, is forward to explain that it is meant not for learners at all but for teachers.)

Kant's Critique of Pure Reason: A Critical Exposition. By GEORGE S. MORRIS, Ph.D., Professor of Ethics, History of Philosophy and Logic in the University of Michigan, and Lecturer on Philosophy in the Johns Hopkins University, Baltimore. Chicago: Griggs (London: Trübner), 1882. Pp. xvi. 272.

This is the first-published volume of the series of "German Philosophic Classics for English Readers and Students" (hailing from America but not to be written only by Americans) the announcement of which was noticed here some time ago. The author of the present volume, already favourably known as the translator of Ueberweg's *Geschichte der Philosophie*, is editor of the series, and five other volumes by different writers (dealing with works of Kant, Schelling or Hegel) are definitely promised. "Critical exposition of some one masterpiece" is to be the purport of each volume. In the present instance, such exposition, disposed in seven chapters ("The Question Stated," "The Non-Contingent Form of Sense," "The Understanding as a Non-Contingent faculty of Sensible Knowledge," "The 'Transcendental Deduction' of the Categories," "The Principles of Science," "The Limit of Science," "The Futility of 'Metaphysics,'" "Metaphysics as a Science"), is prefaced by a general Introduction, in which the author seeks to establish an opposition between two schools of philosophy as Science of Being founding upon two different conceptions of Knowledge—the one taking Knowledge, falsely, as a purely mechanical process, with Agnosticism and Practical Materialism as its result, the other, truly, as an organic process, which justifies a spiritualistic Science of Being. All modern philosophy before Kant, even the spiritualistic thought of Leibniz, seems to him more or less tainted with the false conception; most of all English philosophy, and this also after Kant. It was Kant who first began distinctly to clear the way through the "woods of mechanism and formalism," but he was not himself able to emerge into what Prof. Morris (after another) describes as "the green meadows of objective reality": this was reserved, with the help of other workers, for Hegel. The reader will now understand from what point of view and in what company Prof. Morris performs his task of exposition and criticism. It is performed, as may be supposed, with no lack of insight, and even after all the other expositions of Kant that have been aimed of late at the froward generation that still looks for some philosophical fruit from "English Psychology," it has its justification and will have its use.

The Eight Circulars of Auguste Comte. Translated from the French. London: Trübner, 1882. Pp. 89.

Dr. Congreve says by way of preface:—

"At my request Mr. Lobb undertook the translation of these Circulars. At his death two only were found complete; the third and fourth wanted finishing. The last four have been translated by others."

La Psychologie de l'Enfant (Les trois premières Années). Par BERNARD PEREZ. Deuxième Edition, entièrement refondue. Paris : Germer Baillière, 1882. Pp. 347.

The author has here cast into a new form, while considerably extending, his essay *Les trois premières Années de l'Enfant*, which was critically noticed in MIND XII. The line of treatment is the same as before; the record of facts has been largely increased, though some of those previously given have been sifted out. From the author's other treatise *L'Éducation dès le Berceau* (MIND XXII.) some pages of psychological observation are now incorporated in the present work, to be replaced in the other by more strictly pædagogical matter.

Études de l'Homme Moral fondées sur les Rapports de ses Facultés avec son Organisation. Par J. P. DESSAIGNES, Chevalier de la Légion d' Honneur, Ancien Professeur de Philosophie et de Physique au Collège de Vendôme, Ancien Directeur du même Collège. 3 Tomes. Paris : Typographie Delalain Frères [1882]. Pp. xxvi. 378 ; 353 ; 403.

This fine piece of French typography, of which only three hundred copies have been thrown off, makes public for the first time a work composed as far back as the years from 1818 to 1828. The author, who died in 1832, in his 70th year, was a member of the congregation of the Oratory and professor of philosophy in the College of Vendôme before the Revolution; retained his professorship when the college was turned into the central school of the department; and, after hearing a year's lectures in Paris, at the new École Normale, from Berthollet, Monge and Lagrange, married and revived in a new form the old college at Vendôme, where he thenceforth remained and reared many distinguished pupils—among them the elder Duke Decazes (to whom the work is dedicated), Balzac and Dufaure. Before devoting himself to the psychological task of his later years, he had won considerable distinction in more than one department of physics, and it was his interest in physiological science that gave the special direction to his elaborate inquiry into the facts of mental life. His three sons, who mention that the long delay in publication has been due to circumstances beyond their control but do not say what these were, issue the work now on the ground of its having not only an historical interest in relation to the state of philosophical thought and scientific inquiry at the time when it was written, but a positive value because of the completeness and originality of its psychological analysis. Nor are they mistaken in their opinion. The analysis is remarkable for the prominence given to Instinct among the original phases of mental life, and generally also for the large part assigned to voluntary activity in the development of intellectual consciousness. Sensations, Instincts, Passions, Habitudes form the main heads of division. Under the last, the author, after considering Habit in general, treats in succession of Memory, Passive Imagination, Active Imagination, Understanding, and finally Language in itself and in relation to thought. The work is, as it professes to be,

throughout a treatise of *physiological* psychology, and it is surprising how very advanced for the time the author's physiology was; but he could already take advantage of Flourens's experiments. While carrying through the physiological interpretation, he is, however, careful to maintain a metaphysical dualism of mind and body; also there is not a little of metaphysic imported, in the fashion of the older psychology, into his theory of sense-perception. On the whole, the book may be regarded as perhaps the highest outcome of the school of Condillac, before the influence of the Scottish and of the German philosophy began to tell. (Reference is made to Reid, but only in an incidental way.) The author, within the limits of the school, works upon the track of Cabanis, in opposition to the introspective method of Destutt de Tracy.

Commentar zu Kant's Kritik der reinen Vernunft. Zum hundertjährigen Jubiläum derselben herausgegeben von Dr. H. VAHINGER, Privatdocenten der Philosophie an der Universität Strassburg. Erster Band, Zweite Hälfte. Stuttgart: Spemann, 1882. Pp. 209-507.

This second part of Vol. I. of Dr. Vaihinger's elaborate *Commentary* (first part noticed in MIND XXIV.), though published two or three months ago, has come too late to hand to be more than mentioned now. It carries the work as far as the end of Kant's "Introduction," and, though the whole body of the *Kritik* remains to be grappled with, the first volume as now completed so fairly represents what must be the character of all the succeeding volumes, however many they may be, that detailed criticism should not (and shall not long) be deferred here. Meanwhile, it may be remarked that the author continues, as he began, to devote the most minute attention to all the non-German, as well as the German, literature that has come under his notice. This is so new a feature in German work of the kind that it deserves warm acknowledgment. And perhaps even more remarkable is the author's disposition to attach weight to the criticisms of men who, while they may have owed much to Kant, can in no sense be described as *Kantianer*. In this view, we are glad to draw attention to Dr. Vaihinger's renewed request that all writers upon Kant would favour him with copies of their productions—whether books, dissertations, programs, articles, or critical reviews (however small)—published or to come. Duplicates of anything he has already in hand he will either make over to the library of the Strassburg Philosophical Seminary or (if desired) return; and everything received will be acknowledged in the prefaces of following volumes. (Address to the University of Strassburg i.E., or through his publisher.)

Geschichte der Ethik in der neueren Philosophie. Von FRIEDRICH JODL, Privatdocenten der Philosophie an der Universität zu München. Band I. (Bis zum Ende des 18 Jahrhunderts; mit einer Einleitung über die antike u. christliche Ethik.) Stuttgart: Cotta, 1882. Pp. xii, 446.

The author in this historical review of ethical thought confines

himself to the two questions which modern philosophers have been mainly concerned to answer—the question of principle, What is morality? and the question of origin, Whence has morality its spring? The whole department of applied ethics (which has been cultivated in modern times chiefly by theologians, following the Scholastic tradition) is left aside; though he has some hopes of taking up its history later, in a spirit suitable to present wants. Within his limits, he seeks to probe the ethical questions to the bottom, in their relation to theology, metaphysic and psychology. Incidental criticism is mixed up with the historic presentation, but the more systematic appreciation of results is reserved for the conclusion of the whole work. In the present volume, bringing the history down to the end of the 18th century, the introductory chapters on Ancient and Scholastic Ethics occupy respectively 36 and 48 pp. After a chapter on the beginnings of Modern Ethics in Bacon and others, a large part of the volume (pp. 108-257) is devoted to the English movement from Hobbes to Adam Smith (including Paley) in four chapters, followed by two (pp. 258-321) on the ethics of Cartesianism and of the French Enlightenment, and two more (pp. 322-68) on Spinoza and Leibniz. The remainder of the volume (pp. 369-446) is composed of references and notes.

Grundzüge der Religionsphilosophie. Dictate aus den Vorlesungen von HERMANN LOTZE. Leipzig: Hirzel, 1882. Pp. 102.

This third issue of Lotze's Lecture-notes (for dictation)—previous issues noted in *MIND* XXV., XXVII.—gives those on Philosophy of Religion as delivered in the winter-semester of 1878-9. They are disposed by the Editor (Prof. E. Rehnisch) in nine chapters (after an Introduction) entitled—Existence of God, Pluralism and Monism, Nature of the highest Principle, Notion of Creation, Conservation of the World, Government of the World, Actual Course of the World, Religion and Morals, Dogmas and Confessions.

Der menschliche Wille vom Standpunkte der neueren Entwicklungstheorien (des "Darvinismus"). Von G. H. SCHNEIDER. Berlin: Dümmler, 1882. Pp. 498.

In this elaborate treatise, which we purpose reviewing at some length in the next number of *MIND*, Herr Schneider follows up his work *Der thierische Wille* (*MIND* XIX.) by applying the doctrine of Evolution to the more complex phenomena of human action. As in the earlier volume, Reflex Action is taken as the type, there being no reference to the possibility of spontaneous movement, that is to say movement the causes of which are to be looked for wholly on the motor side of the nervous system. The idea of reflex action is subjected to a careful reinvestigation with a view to assimilate it on one side to physiological processes lying outside the nervous system, and on the other to conscious and deliberately voluntary actions. Instinctive actions, which are subdivided into Sensuous and Perceptual, have a much wider rôle assigned them in the development of the individual's will than is usually recognised. Consciously purposive actions,

again, are regarded as developing out of instinctive by the gradual subordination of action to remote and general ends. The ultimate end, the representation of which constitutes an action voluntary in the narrowest sense, is Happiness, which looked at objectively is the preservation of the species; the consilience between the objective and subjective ends being brought about by natural selection in the way with which Mr. Herbert Spencer and his English followers have made us familiar. The intricate problems connected with human volition, the relation of the intellectual to the emotional factor in action, freedom, the nature of good, pessimism, all come in for lengthy discussion. There is further a full treatment of the nature and origin of expressive movements. A practical turn is given to the treatise by an attempt to enrich pædagogics with a new theory of moral training. [J. S.]

Anti-Kant oder Elemente der Logik, der Physik und der Ethik. Von Dr. ADOLF BOLLIGER, Privatdocenten der Philosophie an der Universität zu Basel. Erster Band. Basel: Schneider, 1882. Pp. 407.

The author sends the following :

"This work is based on a conviction that the slight consideration shown to German philosophy at home and abroad is owing to Kant and his disciples. The author sets himself to the task of overturning the chief results of the Kantian philosophy in the departments of Logic, Theory of Knowledge, Physics, Psychology, Ethics, and the Philosophy of Religion. An attempt is made to clear the way for an untrammelled development of the more modern way of thinking, and to vindicate for a strictly Empirical Philosophy all the consideration hitherto paid by thinkers to the 'queen of sciences'. Outside Germany this has long been considered as a matter of course, but in Germany itself, owing to the assumption that Empiricism is inseparable from Scepticism—John Stuart Mill's philosophy being held to prove this—the difficulties in the way of Pure Empiricism are much greater. It is sought here to prove that Empiricism, freed from some chronic errors and thoroughly worked out, goes far deeper than has hitherto been supposed, remaining at the same time quite untouched by Scepticism. The greater part of the book, however, is taken up with the author's positive contributions to the treatment of existing problems. The notions of Experience and of Knowledge, of Analytic and of so-called Synthetic Judgment, of Idea and of Concept, of Cause, Substance, Mind, Space, Time,—these are the principal subjects handled in this first volume. In the succeeding volume the other chief topics of the Kantian philosophy will be dealt with. (The book is dedicated to the memory of Darwin and Lotze)."

VIII.—MISCELLANEOUS.

Another untimely death has to be added to the painful record of the year. Professor William Stanley Jevons (as it is most natural to call him, though he retired from all academic duty more than a year ago) was drowned on the 13th of August, while bathing at Galley Hill, near Bexhill, on the Sussex coast. He had not completed his 47th year, being born in September 1835. For years past, his health had been very uncertain, and most probably his death in the water was due to shock. He was born at Liverpool, grandson, on the mother's side, of William Roscoe, of literary fame; his father, Thomas Jevons, was an iron merchant. Educated as a boy at the High School of Liverpool, and at the Mechanics' Institution under the late Dr. W. B. Hodgson, he passed about the age of 16 to University College, London, and there distinguished himself so much in mathematics and chemistry that, in 1854, while still an undergraduate, he had the offer of a place in the Sydney Mint from Dr. Thomas Graham. This he accepted as promising him the means, after a time, of continuing his studies, and so preparing himself for a life of intellectual work. After five years' residence in Australia, he accordingly returned in 1859, and finally completed his course as a student in 1862 by taking the London degree of M.A., with highest distinction, in the branch (as it was then called) of Logic and Moral Philosophy with Political Economy. By this time he had chosen his sphere of work among those subjects, and, beginning at Owens College in the following year as Teacher, he was afterwards, in 1866, appointed Professor over the whole range of them. Ten years later he desired to be freed from the burden of so much lecturing, and moved to the chair of Political Economy in his old College in London; but even the small amount of public duty there required of him proved more than his other work left him strength or inclination for, and he finally withdrew into private life in the winter of 1880-1. Meanwhile, through all the years from 1862, he had been displaying an extraordinary activity and building up an assured reputation as an original thinker and writer in the two departments of Logic and Political Economy. The list of his economic works alone—books, pamphlets, or memoirs—ranging from the most general questions of theory to the most special of practical applications, is remarkable enough for so short a career. When his achievements in logical science are added, he appears as a man of extraordinary fertility and power. His logical work, progressing by the three main stages of *Pure Logic* (1864), *The Substitution of Similars* (1869), and *The Principles of Science* (1874), has been repeatedly considered in this Journal as it will often have to be considered again; there is no need to say more of it now than that it has won him a place of permanent mark in the history of the science. As a man, Jevons was most lovable. Of a shy and

retiring disposition, he never mixed much in general society, but he had a geniality of nature and sweetness of temper, with a ready helpfulness, which secured him an inner circle of most devoted friends. With so firm a grasp as he had of his own convictions and opinions, he was admirable for the spirit in which he courted and welcomed criticism. He has left a widow and three young children to mourn his sad fate.

We have also to record the death, at Hampstead on 6th July, of Dr. William George Ward, in his 71st year. A seceder to the Church of Rome after being deprived of his Master's degree at Oxford in 1845 for his reflections upon Anglicanism in his *Ideal of a Christian Church* (1844), he was later on made Doctor of Divinity by the Pope, and for a time taught philosophy as professor in St. Edmund's College at Ware. Becoming also editor of the *Dublin Review*, he wrote a long series of articles which won him a considerable philosophical reputation. They began some fifteen years or more back (one of the most notable, on "Science, Prayer, Free-Will and Miracles," dating from April 1867) and were not discontinued when he retired from the editorship two or three years ago. More expressly, from 1871, he set himself the task to start from what he called "the very logical commencement and, by a gradual process, to establish securely on argumentative grounds with special reference to the sophisms of modern unbelief the existence of the infinitely Perfect Being whom Christians call God". Modern unbelief, in this country at least, seemed to him to be most seriously represented in the thought of John Stuart Mill, and the argument was generally developed in the form of an attack on Mill's positions. "The Rule and Motive of Certitude" (July 1871), "Mr. Mill's Denial of Necessary Truth" (Oct.), "Mr. Mill on the Foundation of Morality" (Jan. 1872), were followed in course of time by "Mr. Mill on Causation" and by "Mr. Mill's Denial of Free-Will" (April and July 1874), with recapitulatory articles by the way—one of them (July 1873) being a reply to Mill's notices of the second article in the eighth edition of the *Logic* and fourth of the *Hamilton*. After 1874, the argument was carried hardly any farther. Free-will, defended now more particularly against Prof. Bain, was the subject upon which Dr. Ward resumed his polemic in July 1876, and three years later he was still at Free-will, in the *Dublin Review*; the conflict being afterwards transferred, for a little, also to these pages (MIND XVII., XVIII.). The weak state of Dr. Ward's health, which had early interfered with the regular execution of his design, was doubtless the reason why he was never able to fulfil it. In controversy, while always fair and candid, he displayed no ordinary dialectical power; and he was also, in his way, a really acute reasoner. He came, however, out of his scholastic entrenchments, much less near than he thought to the lines of modern advance, and did battle in a manner that struck his friends with admiration more than it confounded those whom he desired to oppose.

We have received from the Rev. Dr. Henry Parkinson, Professor of Philosophy in St. Bernard's Seminary, Solihull, a somewhat lengthy Note on Mr. Davidson's critical notice of Father Pesch's *Institutiones Philosophiæ Naturalis*, &c., in MIND XXVII., contesting the representation there given of the book as well as of the present policy at ecclesiastical headquarters in Rome. The Note is unavoidably left over till another issue.

Mr. George Stanley Hall, who is well-known to the readers of this Journal, has been appointed Professor of Psychology in the Johns Hopkins University, Baltimore. The University which has given this additional proof (after so many others) of comprehending and meeting the scientific wants of the time, and Mr. Hall, who has prepared himself so specially for psychological work, are equally to be congratulated on the appointment.

Dr. Josiah Royce, also no stranger to our readers, is leaving California to take charge of Prof. Wm. James's work at Harvard, during Prof. James's absence this winter in Europe.

THE JOURNAL OF SPECULATIVE PHILOSOPHY.—Vol. XVI. No. 1. R. A. Holland—The Philosophy of the Real Presence. H. K. Jones—The Philosophy of Prayer and the "Prayer Gauge". E. Caird—The Problem of Philosophy at the Present Time. Kant—Anthropology (trans.). Hegel—On the Absolute Religion. Hegel—Philosophy of the State. G. Garri-gues—The Hero as Artist. Notes and Discussions, &c.

REVUE PHILOSOPHIQUE.—VII^{me} Année, No. 7. C. Viguier—Le sens de l'orientation et ses organes chez les animaux et chez l'homme. H. Joly—Psychologie des grands hommes (ii.). Th. Ribot—La volonté comme pouvoir d'arrêt et d'adaptation. Analyses et Comptes-rendus (H. C. Bastian, *The Brain as an Organ of Mind*, &c.). Rev. des Périod. No. 8. H. Marion—La philosophie de F. Glisson. J. Delbœuf—Déterminisme et liberté (fin). H. Joly—Psychologie des grands hommes (iii.). Analyses, &c. Notices bibliog. Rev. des Périod. No. 9. Ch. Secrétan—Le droit et le fait. G. Tarde—Les traits communs de la nature et de l'histoire. E. Pannier—Le syllogisme et la connaissance. Notes et Discussions (A. Hérault—La mémoire de l'intonation. G. Fonsegrive—Sur le sens équivoque des mots Analyse et Synthèse). Analyses, &c. Notices bibliographiques.

LA CRITIQUE PHILOSOPHIQUE.—XI^{me} Année, Nos. 18-26. L. Menard—Sur l'enseignement primaire (18). A. Comte: Un Opuscule inédit: *Mes Reflexions; Rapprochements entre le régime de 1793 et celui de 1816*—pp. 14, dated 1816, supposed to be Comte's earliest work (19). C. Renouvier—De quelques opinions récentes sur la conciliation du libre arbitre avec le mécanisme physique (20, 22); Remarques sur une proposition de M. Dauriac relative à la notion de nombre (24); V. Egger, *La parole intérieure* (26). L. Dauriac—De la notion du nombre (21). Sh. Hodgson—Réponse aux notes de M. Renouvier (23, 24, 25). F. Pillon: A propos de la notion de nombre: *Réflexions sur les différentes espèces de grandeur* (24); Y a-t-il des quantités d'ordre psychique? (25)

LA FILOSOFIA DELLE SCUOLE ITALIANE.—Vol. XXV. Disp. 2. L. Ferri—Dottrina aristotelica del bene e sue attinenze. T. Mamiani—Della rinomanza degli scrittori in ordine al processo civile. T. Ronconi—Della filosofia baconiana. T. Mamiani—Filosofia giuridica. T. M.—Dei problemi sociali. Bibliografia.

RIVISTA DI FILOSOFIA SCIENTIFICA.—An. I. No. 5. R. Ardigo—La formazione storica del concetto scientifico della "forza". G. Barzellotti—Le condizioni presenti della filosofia e il problema della morale. A. Zorli—Sull'origine di alcuni miti. F. S. De Dominicis—La pedagogia scientifica e la sua funzione sociale. Ferrini e Pogliaghi—La materia radiante secondo le esperienze del Crookes. Rivista Sintetica (G. Cattaneo—I protisti e la protistologia). Riv. Analitica (E. B. Tylor, *Anthropology*, &c.). Riv. Bib. Riv. dei Period.

ZEITSCHRIFT FÜR PHILOSOPHIE, &c.—Bd. LXXXI. Heft 1. J. Kreyenbühl—Die Teleologie als Weltanschauung (ii.). E. Dreher—Ueber das Sittengesetz. J. Volkelt—Wiedererweckung der Kantischen Ethik. G. Frege—Ueber die wissenschaftliche Berechtigung einer Begriffsschrift. A. Krohn—Zur Erinnerung an Hermann Lotze. J. L. A. Koch—Ueber die Seelenvermögen. Rehmke—Physisch oder Psychisch? Recensionen, &c.

ZEITSCHRIFT FÜR VÖLKERPSYCHOLOGIE U. SPRACHWISSENSCHAFT.—Bd. XIV. Heft 1. A. F. Pott—Zahlen von kosmischer Bedeutung, hauptsächlich bei Indern u. Griechen, u. Wichtigkeit von Genealogien im Mythos (i.). G. Soldan—Das Buch der Wunder des Raymundus Lullus. L. Tobler—Die alten Jungfern im Glauben u. Brauch des deutschen Volkes. Beurtheilungen.

PHILOSOPHISCHE MONATSHEFTE.—Bd. XVIII. Hefte 6, 7. Tho. Achelis—Psychologische Streitfragen. R. Lehmann—Ueber das Verhältniss des transcendentalen zum metaphysischen Idealismus. F. Boas—Ueber den Unterschiedsschwellenwerth als ein Maass der Intensität psychischer Vorgänge. W. Schuppe—Zur voraussetzungslosen Erkenntnistheorie. Recensionen u. Anzeigen (R. Adamson, *Fichte*; A. Bain, *James Mill*, *John Stuart Mill*; J. G. Schurman, *Kantian Ethics*; W. Wallace, *Kant*, &c.). Literaturbericht (J. P. Mahaffy, *Descartes*, &c.). Bibliographie, &c.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE.—Bd. VI. Heft 3. J. v. Kries—Ueber die Messung intensiver Grössen u. über das sogenannte psychophysische Gesetz. E. Laas—Vergeltung u. Zurechnung (Schluss). Schmitz-Dumont—Die Kategorien der Begriffe u. das Congruenzaxiom (iii.). W. Wundt—Logische Streitfragen (i.). Anzeigen. Selbstanzeige, &c.

PHILOSOPHISCHE STUDIEN (Herausg. von Wilhelm Wundt).—Bd. I. Heft 3. W. Wundt—Zur Lehre vom Willen. B. Schmerler—Untersuchungen über den Farbencontrast vermittelt rotirender Scheiben. E. Kräpelin—Ueber die Einwirkung einiger medicamentöser Stoffe auf die Dauer einfacher psychischer Vorgänge. W. Wundt—Weitere Bemerkungen über psychische Messung.

Other BOOKS, &c., received: A. Kuenen, *National Religions and Universal Religions*, 'The Hibbert Lectures, 1882,' London (Williams & Norgate), pp. 339. H. Griffith, *Faith: the Life-root of Science, Philosophy, Ethics and Religion*, London (Stock), pp. 171. G. M. Beard, *Psychology of the Salem Witchcraft of 1692*, New York (Putnam), London (Trübner), pp. 112. B. Schoenlank, *Hartley u. Priestley, die Begründer des Associationismus in England*, Inaugural-Dissertation, Halle (Hendel), pp. 58. W. Schuppe, *Das metaphysische Motiv u. die Geschichte der Philosophie im Umriss*, Breslau (Koebner), pp. 37. A. Wernicke, *Die Philosophie als descriptive Wissenschaft*, Braunsch. u. Leipzig (Goeritz u. zu Putnitz), pp. 40; also *Zur Religionsphilosophie* (extract from *Jahrb. f. prot. Theologie*, viii. pp. 193-229). W. Schlötel, *Circular an Gelehrte*, &c., pp. 32. A. Valdarnini, *Dottrina dell' Evoluzione e sue principali Conseguenze teoriche e pratiche*, Firenze (Cellini), pp. 70. E. Heriz, *El Metodo Experimental applicado al Estudio del Divorcio*, Barcelona (Ramirez), pp. 19.

